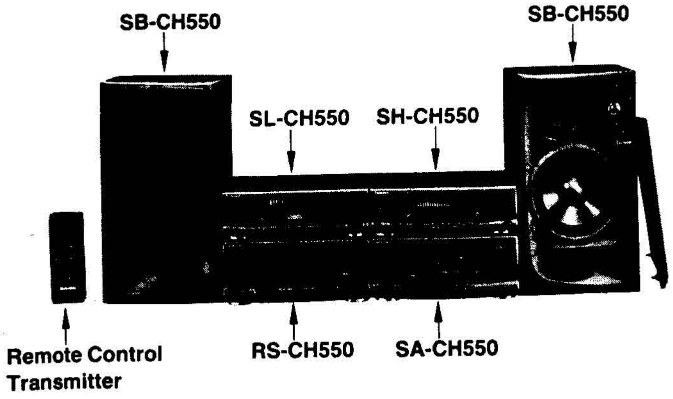
ORDER NO. AD920826

Service Manual

Sound Processor

SH-CH550

Sound Processor



Colour

(K)	Black Type

Area

Suffix for Model No.	Areas	Colour
(E)	Europe and Oceania	(K)

System: SC-CH550

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

SPECIFICATIONS

(DIN 45 500)

■ PRE AMP. SECTION

Input sensitivity and impedance	
PHONO	2.5 mV/47 kΩ
DAT	250 mV/15 kΩ
MIC	0.6 mV/12 kΩ
Output level	
DAT REC OUT (ANALOG)	150 mV/1.5 kΩ

■ EQUALIZER, SOUND FIELD PROCESSOR SECTION

Equalizer	
Center frequency	63, 160, 400, 1 k, 2.5 k, 6.3 k, 12.5 k(Hz)
Fixed mode	
SPACE (3 modes)	HALL, LIVE, DISCO
GEQ (3 modes)	HEAVY, CLEAR, SOFT
CAR/H.P (2 modes)	CARST, HP ST
Frequency response	
TUNER, CD, TAPE, DAT	15 Hz–20 kHz
PHONO (RIAA STANDARD CURVE)	30 Hz–15 kHz/+1.5, −2.0 dB

■ GENERAL

Dimensions (W×H×D)	270×89.5×263 mm
Weight	1.7 kg

Notes:
1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

***Europe area...Made in PAES.**

Technics

■ CONTENTS

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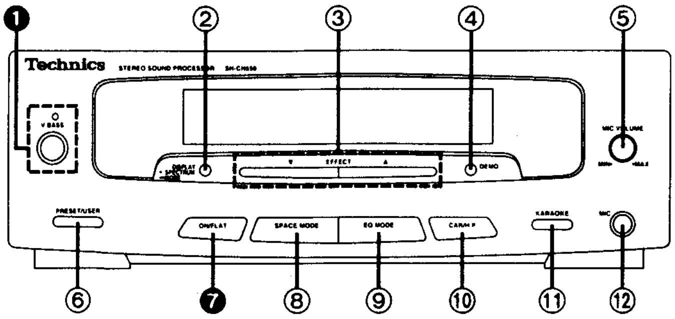
NOTES:
Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROLS



The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.

❶ V. Bass button and indicator (V. BASS)
Press to boost the dynamic low-frequency ranges.

② Display mode select button (DISPLAY, -SPECTRUM, –MODE)
Use to select one of 5 spectrum modes.
Press and hold to extinguish the equalization curve.

③ Sound effect adjustment buttons (▼ EFFECT ▲)
Use to adjust the level of SPACE mode sounds (simulated listening environments), and equalizer level.

④ Demonstration button (DEMO)
Use for reference of the adjustments of equalization curves and SPACE mode sounds. The pre-programmed equalization curves and SPACE mode sounds will be heard sequentially for adjustment example.

⑤ Microphone volume control (MIC VOLUME)
Use to adjust the microphone volume level.

⑥ Preset/User mode button (PRESET/USER)
Press to select either PRESET mode or USER mode.

❼ Equalizer/SPACE mode ON/FLAT button (ON/FLAT)
Press to switch the equalizer or SPACE mode on or flat.

⑧ SPACE mode button (SPACE MODE)
Press to select the SPACE mode.

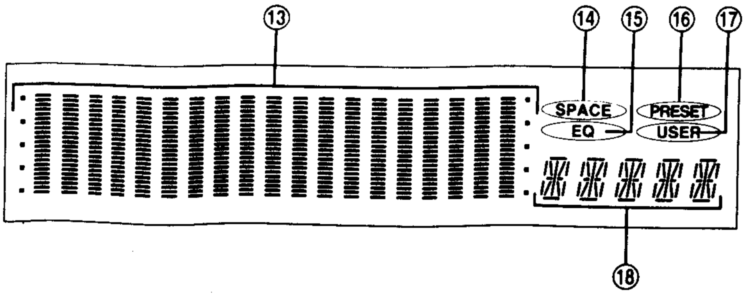
⑨ Equalizer mode button (EQ MODE)
Press to select the equalizer mode.

⑩ CAR/H.P mode button (CAR/H.P)
Press to select the equalizer mode especially programmed for the car audio or headphones stereo use.

⑪ Voice mute button (KARAOKE)
Press to perform "KARAOKE" (microphone mixing with an accompaniment).

⑫ Microphone jack (MIC)
Plug microphone cord into this jack.

•Display section



⑬ Multi level display
Shows the equalization/spectrum analysis level.

⑭ SPACE mode indicator (SPACE)
Lights when you select the SPACE mode (DISCO, LIVE, HALL).

⑮ Equalizer mode indicator (EQ)
Lights when you select the equalizer mode (HEAVY, CLEAR, SOFT).

⑯ Preset mode indicator (PRESET)
Lights when you select the preset mode.

⑰ USER mode indicator (USER)
Lights when you adjust the level of SPACE mode or equalizer level.

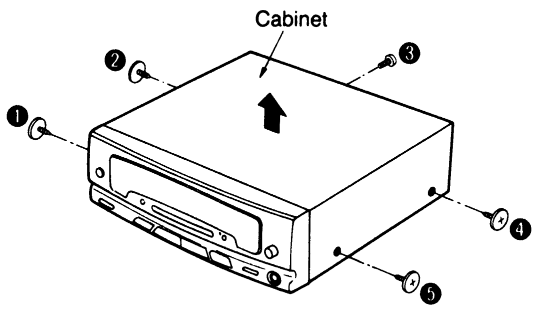
⑱ Sound mode display
Shows the selected mode of equalization curve or SPACE mode sound.

■ DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1 **Removal of the Cabinet**

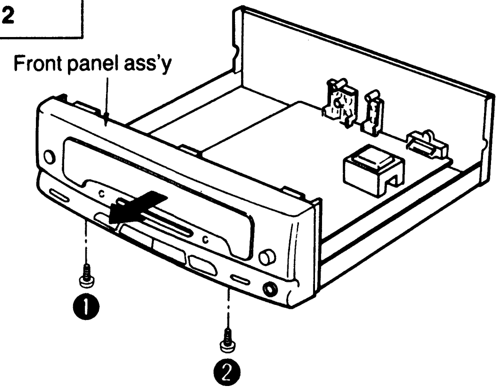
Procedure 1


Cabinet
①
②
③
④
⑤

1. Remove the 5 screws (①~⑤).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2 **Removal of the Front Panel Ass'y**

Procedure 1→2

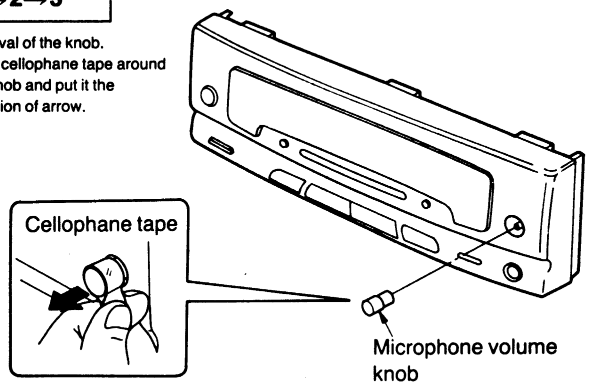

Front panel ass'y
①
②

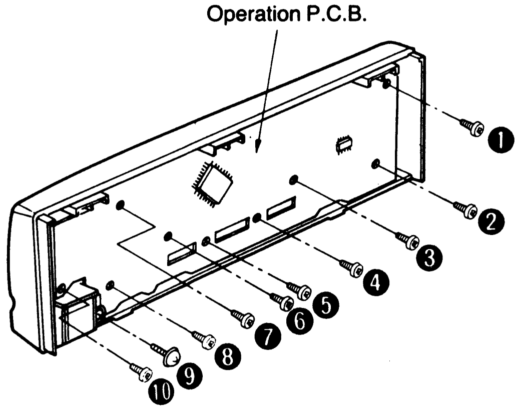
1. Remove the 2 screws (①, ②).
2. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3 **Removal of the Operation P.C.B.**

Procedure 1→2→3

*Removal of the knob.
- Wind cellophane tape around the knob and put it the direction of arrow.

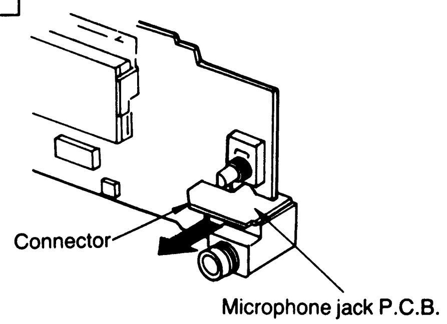

Cellophane tape
Microphone volume knob


Operation P.C.B.
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩

1. Pull out the microphone volume knob.
2. Remove the 10 screws (①~⑩).

Ref. No. 4 **Removal of the Microphone Jack P.C.B.**

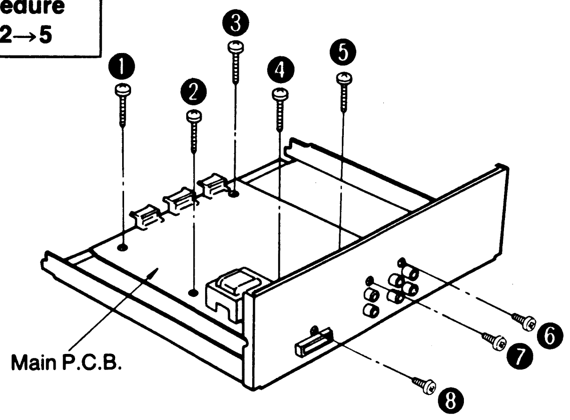
Procedure 1→2→3→4


Connector
Microphone jack P.C.B.

- Remove the microphone jack P.C.B. in the direction of arrow.

Ref. No. 5 **Removal of the Main P.C.B.**

Procedure 1→2→5

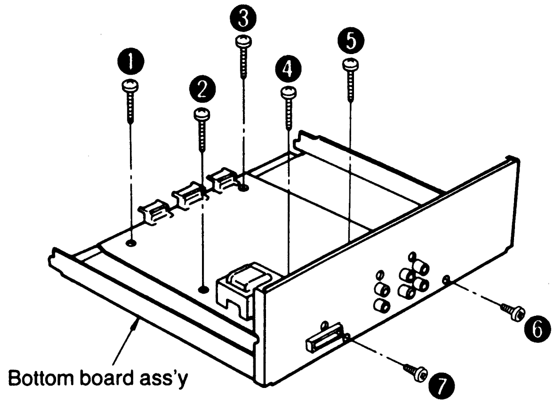

①
②
③
④
⑤
⑥
⑦
⑧
Main P.C.B.

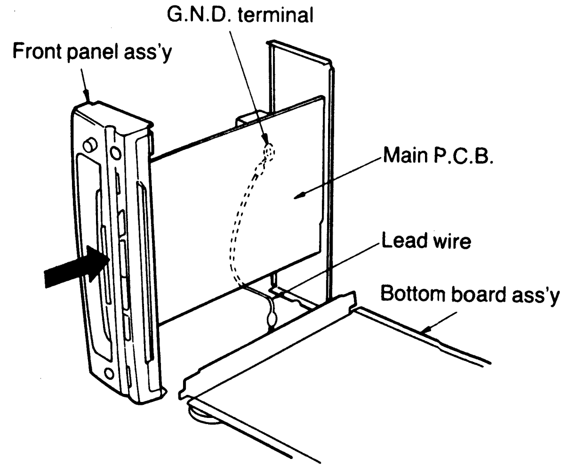
- Remove the 8 screws (①~⑧).

Ref. No. 6 **How to check the Main P.C.B.**

Procedure 1→2→6

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.

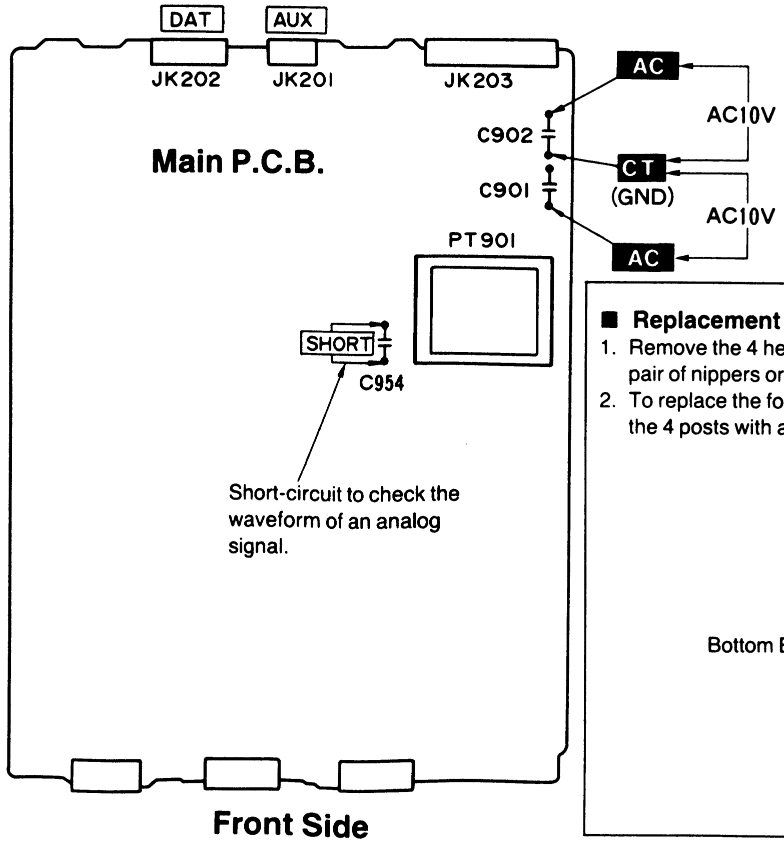

①
②
③
④
⑤
⑥
⑦
Bottom board ass'y


G.N.D. terminal
Front panel ass'y
Main P.C.B.
Lead wire
Bottom board ass'y

1. Remove the 7 screws (①~⑦).
2. Remove the bottom board ass'y.
3. Reinstall the front panel ass'y to the main P.C.B.
4. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.

■ This unit (SH-CH550) is actuated by power supply from the tuner amplifier SA-CH550. If you wish to actuate this unit without using the tuner amplifier SA-CH550 for checking or repairing, follow below procedure.

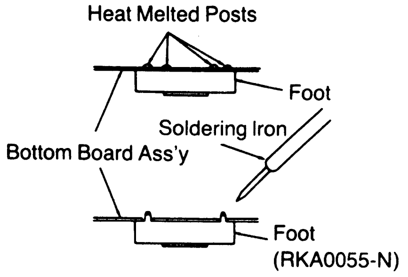
1. Short-circuit the terminal of the capacitor (C954).
2. Apply AC 10 V between AC (C901)– CT (C901, C902)– AC (C902).


DAT
AUX
JK202
JK201
JK203
Main P.C.B.
C902
C901
AC
AC10V
CT
(GND)
AC10V
AC
PT901
SHORT
C954
Front Side

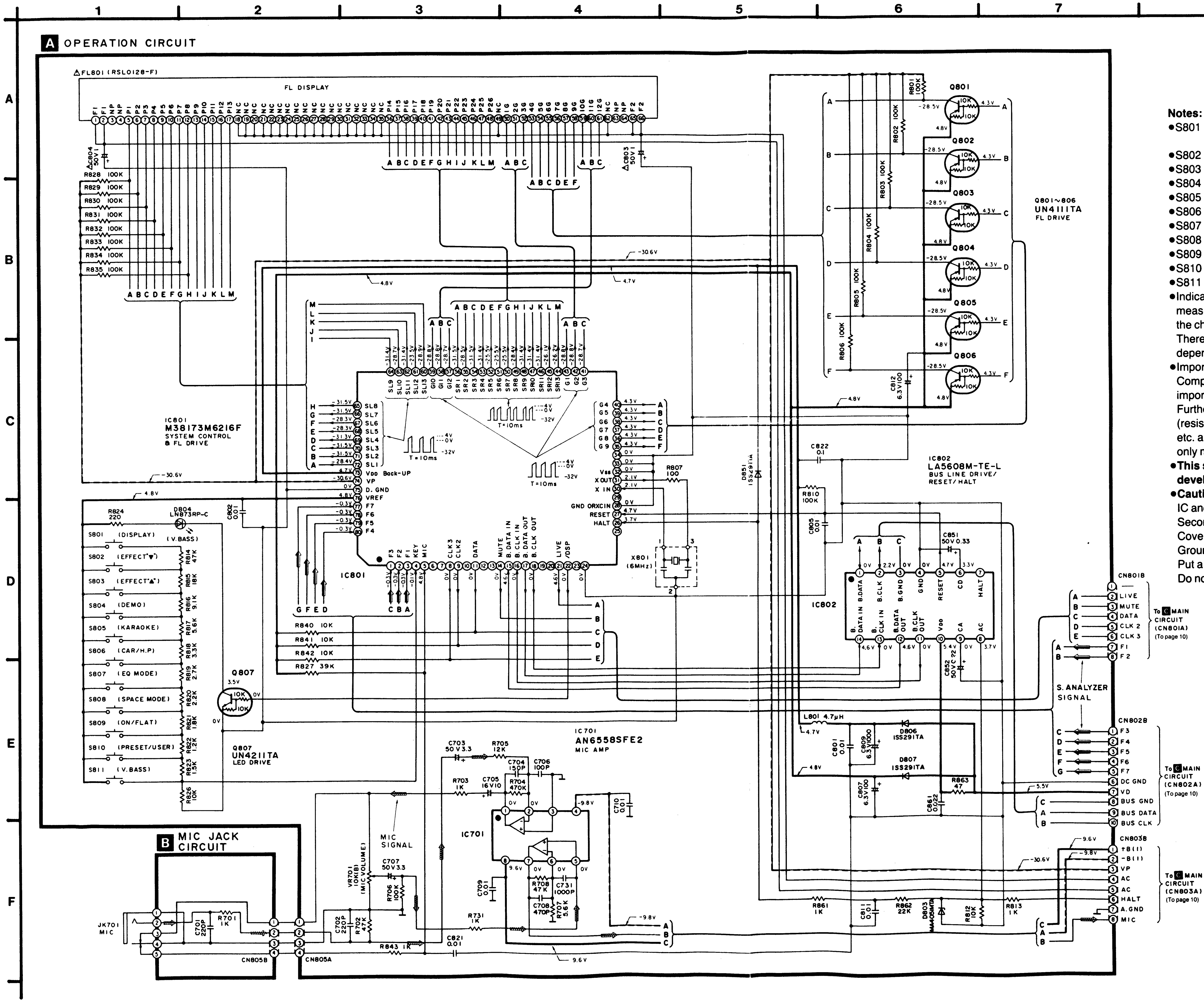
Short-circuit to check the waveform of an analog signal.

■ Replacement of the Foot

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat Melted Posts
Foot
Soldering Iron
Bottom Board Ass'y
Foot
(RKA0055-N)

■ SCHEMATIC DIAGRAM ●OPERATION AND MIC JACK CIRCUIT (Parts list on pages 18~21.)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
A OPERATION CIRCUIT
ΔFL801 (RSL0128-F)
FL DISPLAY
IC801
M38173M6216F
SYSTEM CONTROL
& FL DRIVE
IC802
LA5608M-TE-L
BUS LINE DRIVE/
RESET/HALT
Q801~806
UN4111TA
FL DRIVE
Q801
Q802
Q803
Q804
Q805
Q806
Q807
UN4211TA
LED DRIVE
X801 (6MHz)
D804 LN873RP-C
D851 1SS291TA
D806 1SS291TA
D807 1SS291TA
L801 4.7μH
S801 (DISPLAY)
S802 (EFFECT▼)
S803 (EFFECT▲)
S804 (DEMO)
S805 (KARAOKE)
S806 (CAR/H.P)
S807 (EQ MODE)
S808 (SPACE MODE)
S809 (ON/FLAT)
S810 (PRESET/USER)
S811 (V.BASS)
IC701
AN6558SFE2
MIC AMP
MIC SIGNAL
VR701 10K(B) (MIC VOLUME)
S. ANALYZER SIGNAL
B MIC JACK CIRCUIT
JK701 MIC
CN805B
CN805A
CN801B
1 —
2 LIVE
3 MUTE
4 DATA
5 CLK 2
6 CLK 3
7 F1
8 F2
To C MAIN CIRCUIT (CN801A) (To page 10)
CN802B
1 F3
2 F4
3 F5
4 F6
5 F7
6 DC GND
7 VD
8 BUS GND
9 BUS DATA
10 BUS CLK
To C MAIN CIRCUIT (CN802A) (To page 10)
CN803B
1 +B(1)
2 -B(1)
3 VP
4 AC
5 AC
6 HALT
7 A.GND
8 MIC
To C MAIN CIRCUIT (CN803A) (To page 10)

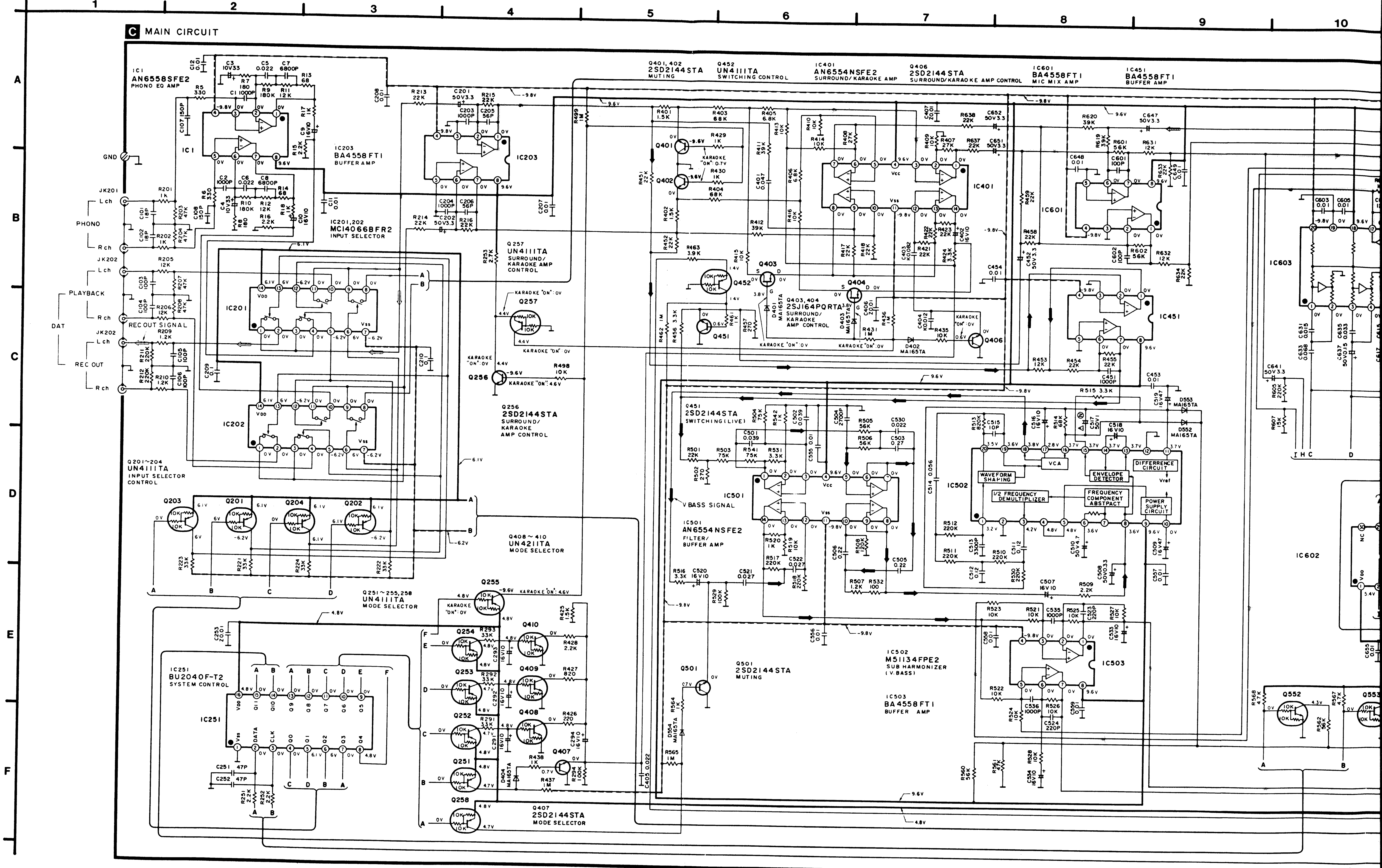
Notes:

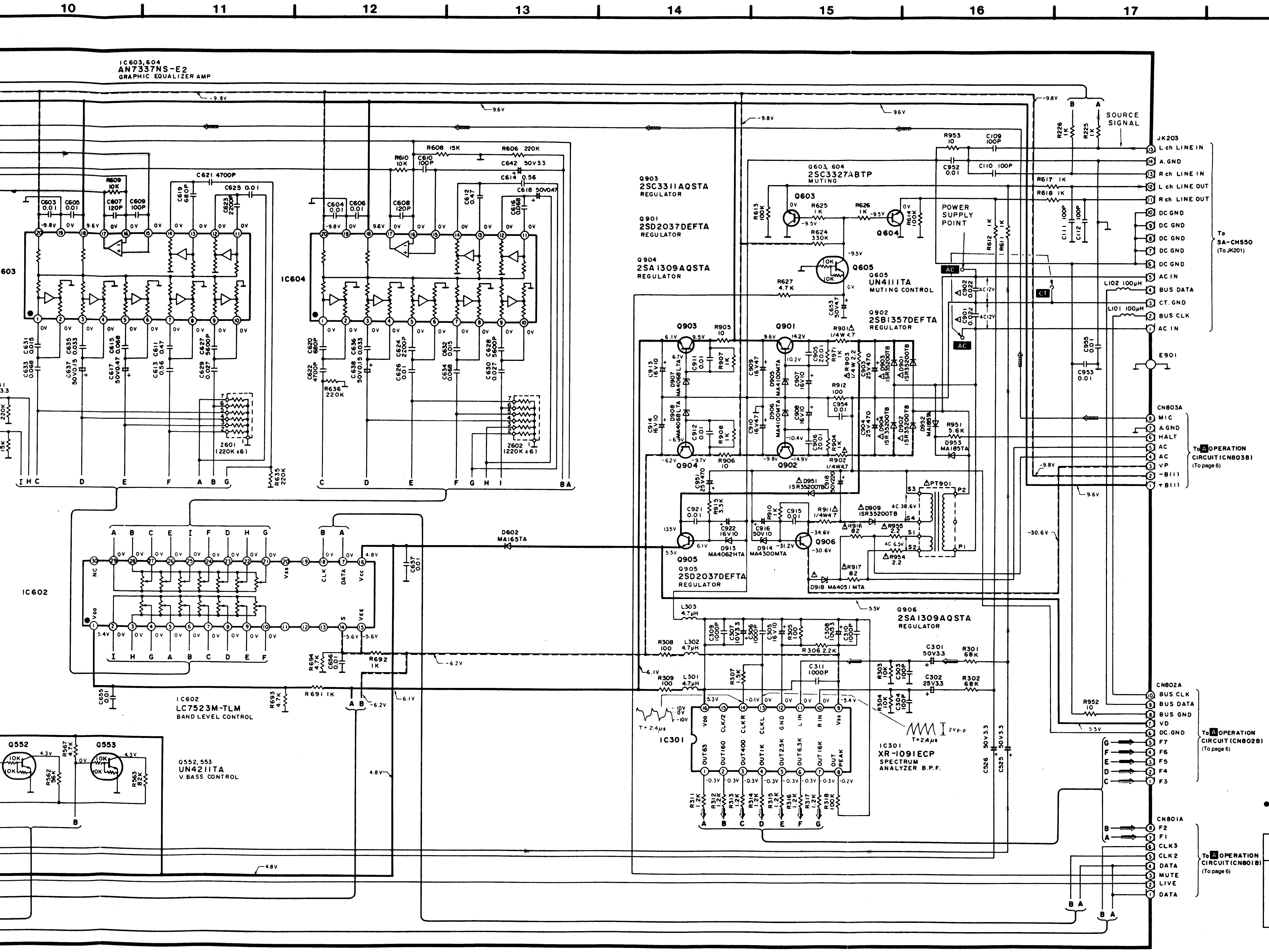
●S801	: Display mode select switch (DISPLAY, -SPECTRUM, -MODE)
●S802	: Sound effect adjustment switch (EFFECT ▼)
●S803	: Sound effect adjustment switch (EFFECT ▲)
●S804	: Demonstration switch (DEMO)
●S805	: Voice mute switch (KARAOKE)
●S806	: CAR/H.P mode switch (CAR/H.P)
●S807	: Equalizer mode switch (EQ MODE)
●S808	: Space mode switch (SPACE MODE)
●S809	: Equalizer/Space mode ON/FLAT switch (ON/FLAT)
●S810	: Preset/User mode switch (PRESET/USER)
●S811	: V. Bass switch (V. Bass)

- ●Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- ●Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
- ●**This schematic diagram may be modified at any time with the development of new technology.**
- ●**Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the word table.
  Do not touch the legs of IC or LSI with the fingers directly.

░ : **Source signal line**
⇨ : **Rec out signal line**
➡ : **V. Bass signal line**
➡ : **Spectrum analizer signal line**
▨ : **Mic signal line**
—— : Positive voltage line
- - - : Negative voltage line

■ SCHEMATIC DIAGRAM •MAIN CIRCUIT (Parts list on pages 18~21.)

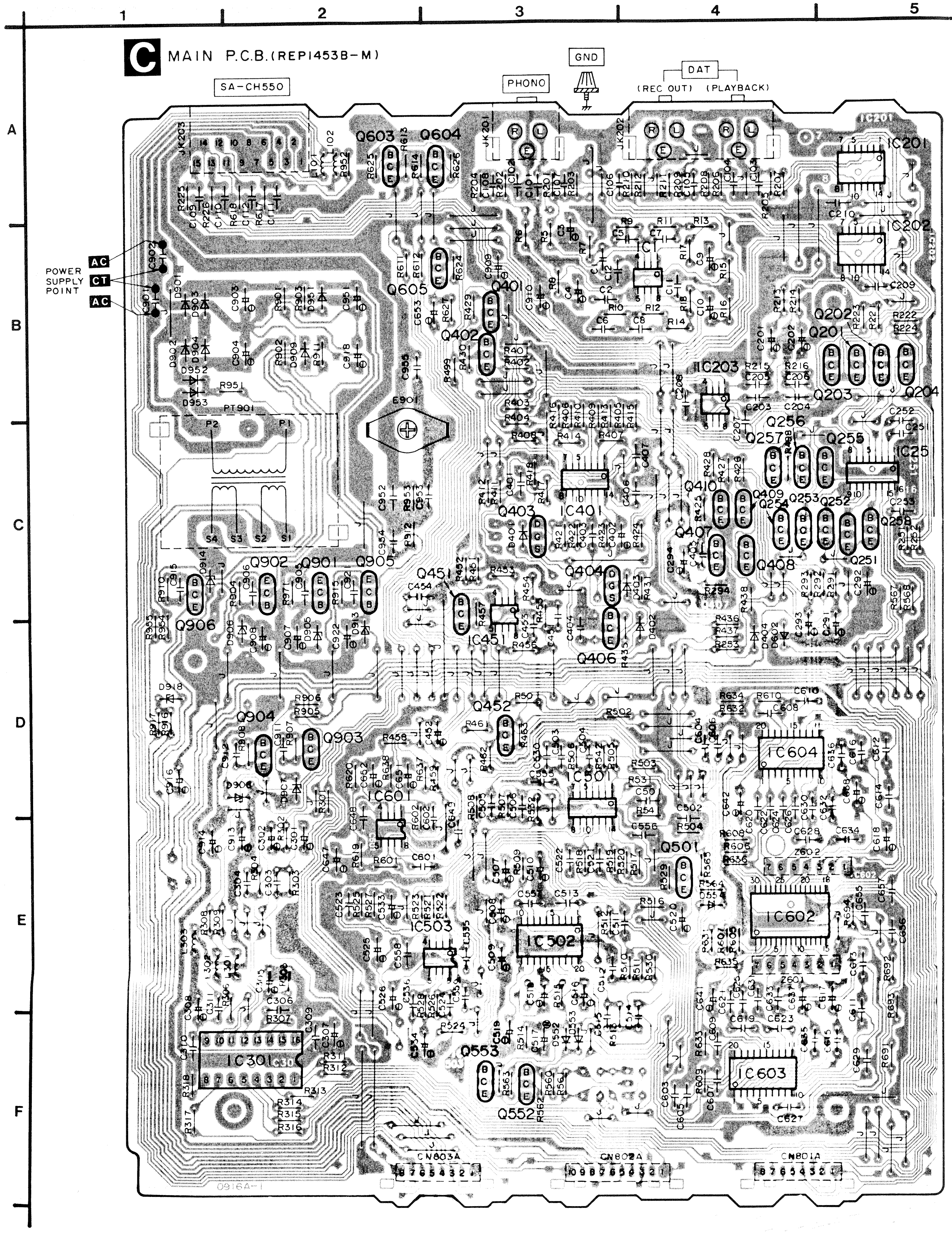

C MAIN CIRCUIT
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
IC1 AN6558SFE2 PHONO EQ AMP
IC203 BA4558FT1 BUFFER AMP
IC201,202 MC14066BFR2 INPUT SELECTOR
Q257 UN4111TA SURROUND/KARAOKE AMP CONTROL
Q256 2SD2144STA SURROUND/KARAOKE AMP CONTROL
Q201~204 UN4111TA INPUT SELECTOR CONTROL
Q408~410 UN4211TA MODE SELECTOR
Q251~255,258 UN4111TA MODE SELECTOR
IC251 BU2040F-T2 SYSTEM CONTROL
Q407 2SD2144STA MODE SELECTOR
Q401,402 2SD2144STA MUTING
Q452 UN4111TA SWITCHING CONTROL
IC401 AN6554NSFE2 SURROUND/KARAOKE AMP
Q406 2SD2144STA SURROUND/KARAOKE AMP CONTROL
IC601 BA4558FT1 MIC MIX AMP
IC451 BA4558FT1 BUFFER AMP
Q403,404 2SJ164PQRTA SURROUND/KARAOKE AMP CONTROL
Q451 2SD2144STA SWITCHING(LIVE)
IC501 AN6554NSFE2 FILTER/BUFFER AMP
V BASS SIGNAL
Q501 2SD2144STA MUTING
IC502 M51134FPE2 SUB HARMONIZER (V.BASS)
IC503 BA4558FT1 BUFFER AMP
WAVEFORM SHAPING
VCA
ENVELOPE DETECTOR
DIFFERENCE CIRCUIT
1/2 FREQUENCY DEMULTIPLIER
FREQUENCY COMPONENT ABSTRACT
POWER SUPPLY CIRCUIT
IC603
IC602
Q552
Q553
GND
JK201 PHONO L ch R ch
JK202 DAT PLAYBACK L ch R ch
JK202 REC OUT SIGNAL REC OUT L ch R ch
KARAOKE "ON": 0V
KARAOKE "ON": 4.6V

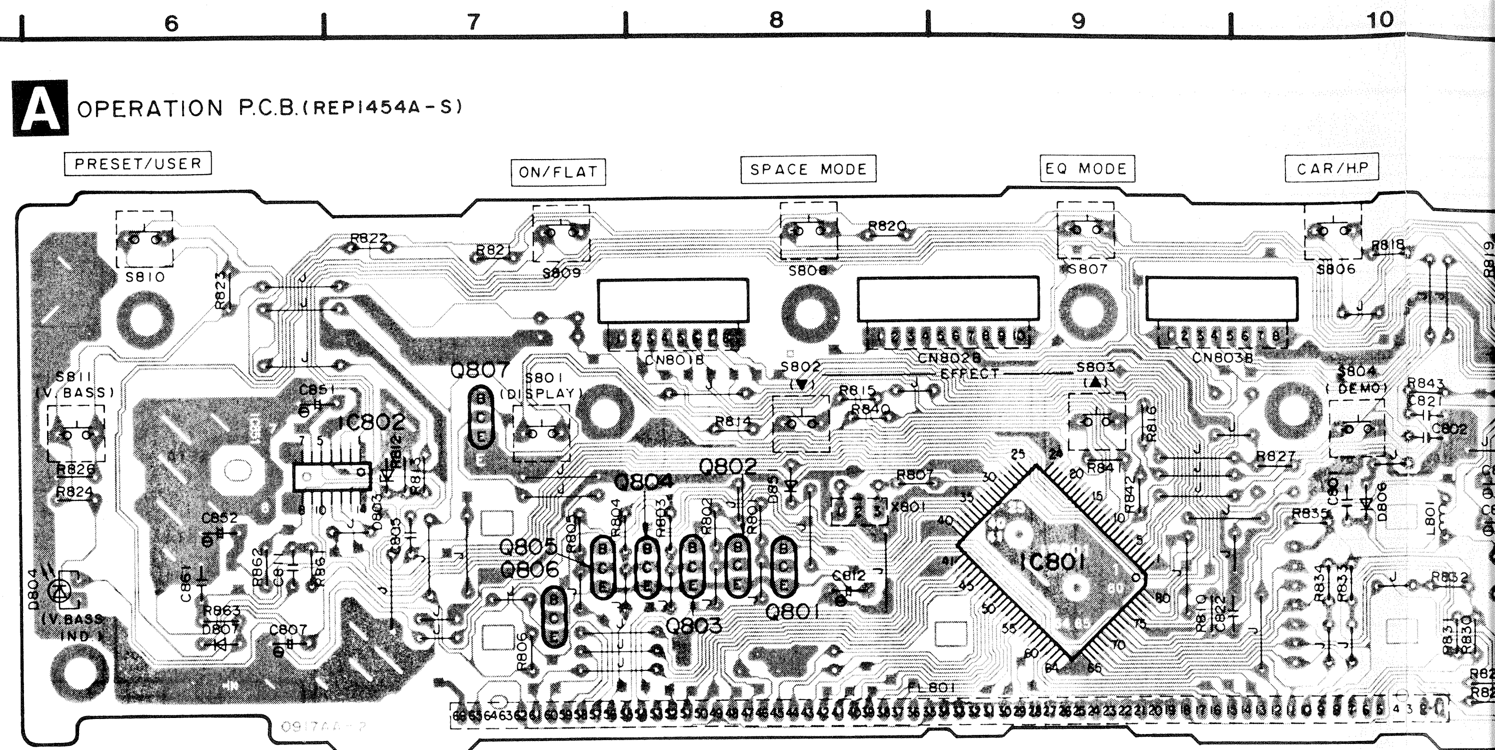

10
11
12
13
14
15
16
17
18
19
IC603, 604
AN7337NS-E2
GRAPHIC EQUALIZER AMP
IC604
Z601 (220K x6)
Z602 (220K x6)
IC602
IC602
LC7523M-TLM
BAND LEVEL CONTROL
Q552
Q553
Q552, 553
UN4211TA
V. BASS CONTROL
D602
MA165TA
Q903
2SC3311AQSTA
REGULATOR
Q901
2SD2037DEFTA
REGULATOR
Q904
2SA1309AQSTA
REGULATOR
Q603, 604
2SC3327ABTP
MUTING
Q603
Q604
Q605
UN4111TA
MUTING CONTROL
Q902
2SB1357DEFTA
REGULATOR
Q905
2SD2037DEFTA
REGULATOR
Q906
2SA1309AQSTA
REGULATOR
PT901
POWER SUPPLY POINT
AC
CT
IC301
XR-1091ECP
SPECTRUM ANALYZER B.P.F.
T=2.4μs
2Vp-p
SOURCE SIGNAL
JK203
L ch LINE IN
A. GND
R ch LINE IN
L ch LINE OUT
R ch LINE OUT
DC GND
AC IN
BUS DATA
CT. GND
BUS CLK
AC IN
To SA-CH550 (To JK201)
E901
CN803A
MIC
A.GND
HALT
AC
AC
VP
-B(1)
+B(1)
To OPERATION CIRCUIT (CN803B) (To page 6)
CN802A
BUS CLK
BUS DATA
BUS GND
VD
DC.GND
F7
F6
F5
F4
F3
To OPERATION CIRCUIT (CN802B) (To page 6)
CN801A
F2
F1
CLK3
CLK2
DATA
MUTE
LIVE
DATA
To OPERATION CIRCUIT (CN801B) (To page 6)

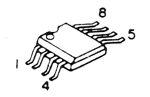
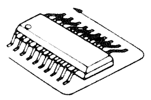
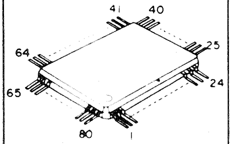
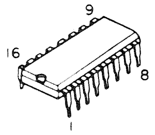
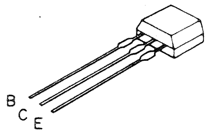
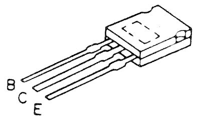
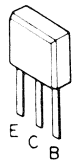
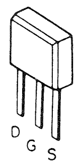
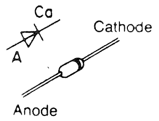
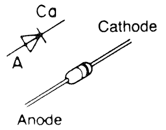
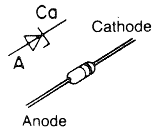
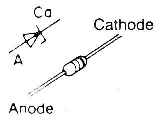
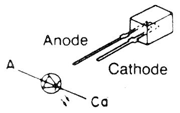
- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC203 IC451 IC503 IC601	BA4558FT1	SVIBA4558F

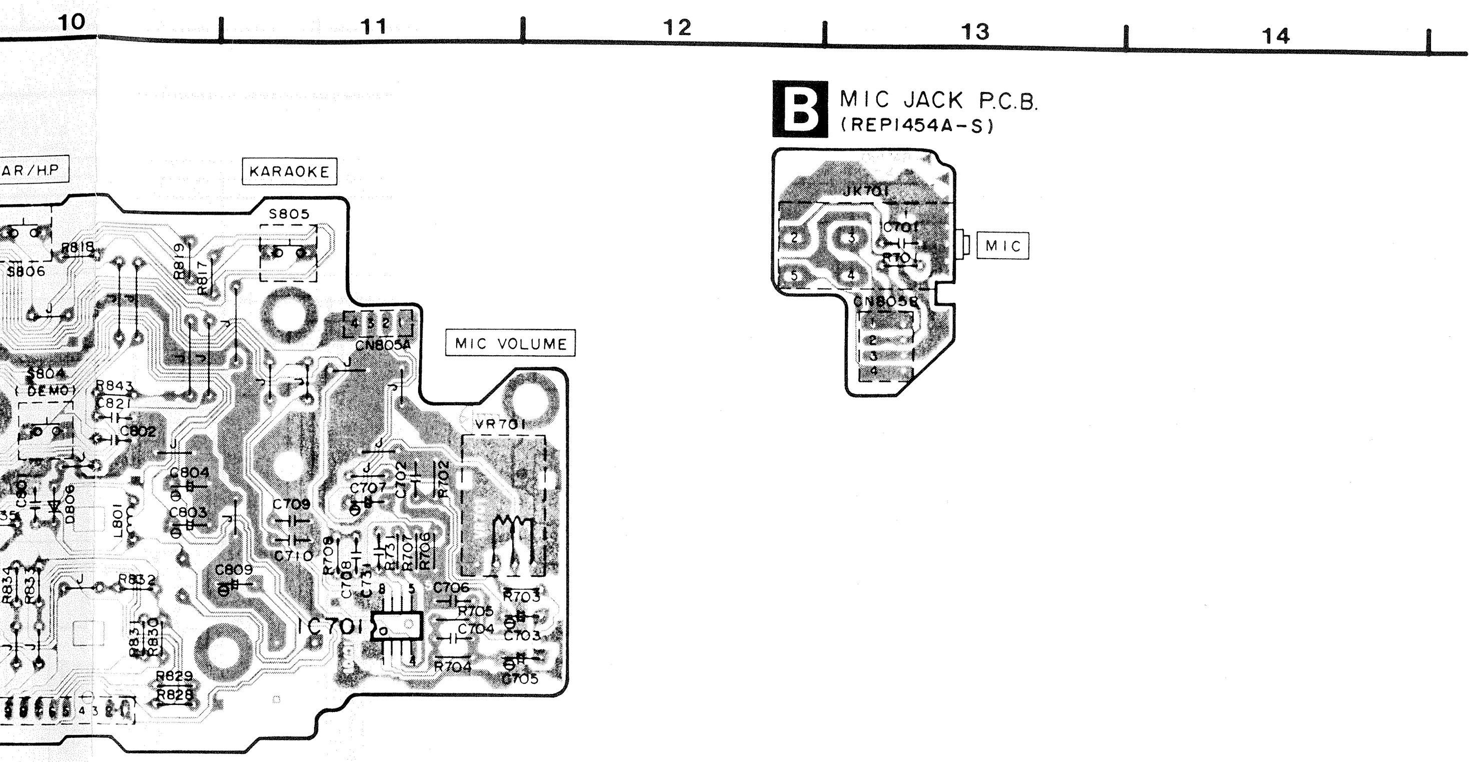
■ PRINTED CIRCUIT BOARD DIAGRAM


1
2
3
4
5
A
B
C
D
E
F
C MAIN P.C.B. (REP1453B-M)
SA-CH550
PHONO
GND
DAT
(REC OUT)
(PLAYBACK)
POWER SUPPLY POINT
AC
CT
AC
IC201
IC202
IC203
IC1
IC401
IC451
IC25
IC301
IC501
IC502
IC503
IC601
IC602
IC603
IC604
CN803A
CN802A
CN801A

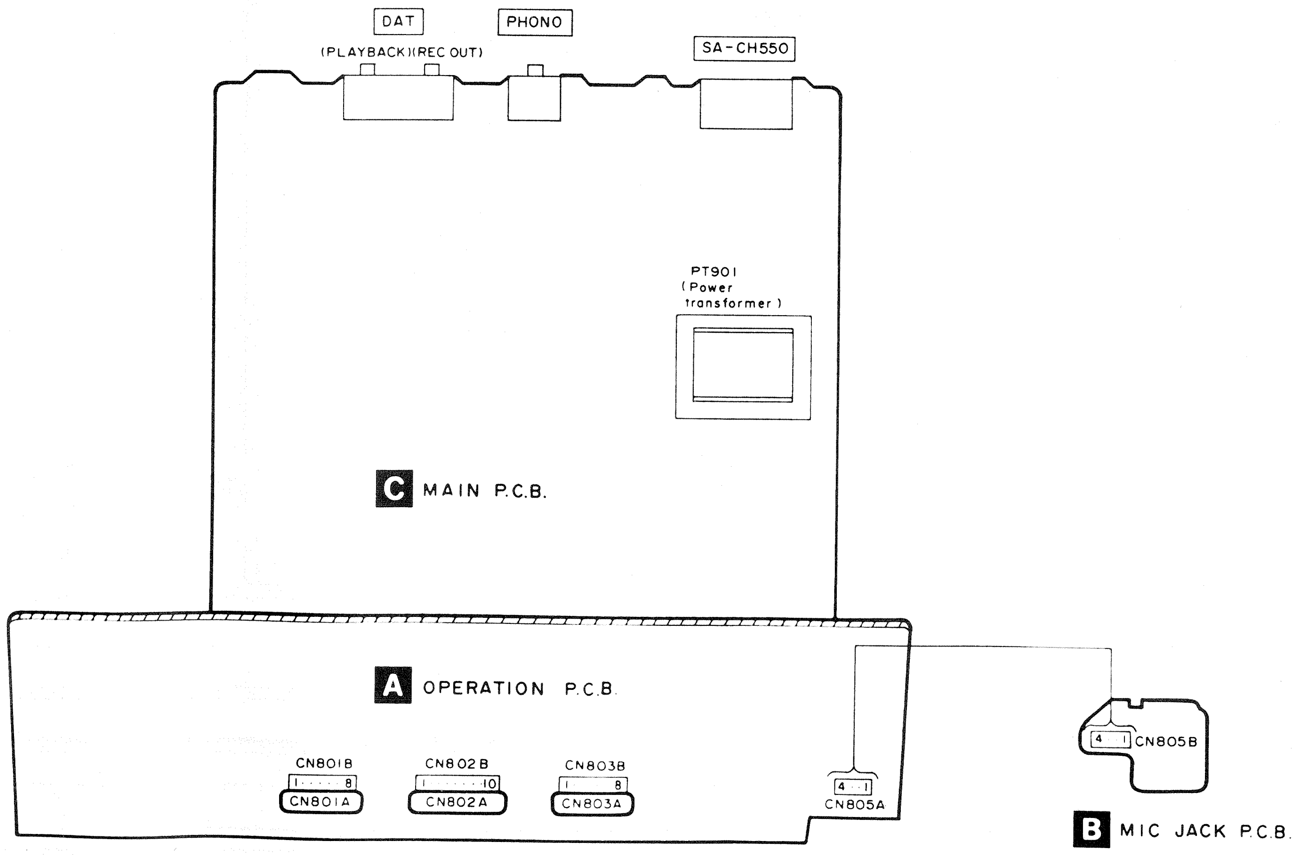

6
7
8
9
10
A OPERATION P.C.B. (REP1454A-S)
PRESET/USER
ON/FLAT
SPACE MODE
EQ MODE
CAR/HP
S810
S809
S808
S807
S806
S811 (V.BASS)
S801 (DISPLAY)
S802
S803
S804 (DEMO)
EFFECT
D804 (V.BASS IND.)
IC801
IC802
CN801B
CN802B
CN803B

BA4558FT1 		AN6554NSFE2 14Pin LA5608M-TE-L 14Pin MC14066BFR2 14Pin BU2040F-T2 16Pin AN7337NS-E2 20Pin	M51134FPE2 20Pin LC7523M-TLM 30Pin AN6558SFE2 8Pin
M38173M6216F 	XR-1091ECP 	2SC3327ABTP 2SD2144STA 	2SB1357DEFTA 2SD2037DEFTA 
	2SA1309AQSTA 2SC3311AQSTA UN4111TA UN4211TA	2SJ164PQRTA 	MA165TA MA185TA 1SR35200TB 
1SS291TA 	MA4100MTA MA4300MTA 	MA4051MTA MA4062HTA MA4068LTA 	LN873RP-C 

8
5
1
4
41
40
64
65
80
1
25
24
9
16
8
1
B
C
E
B
C
E
E
C
B
D
G
S
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Anode
Cathode
A
Ca

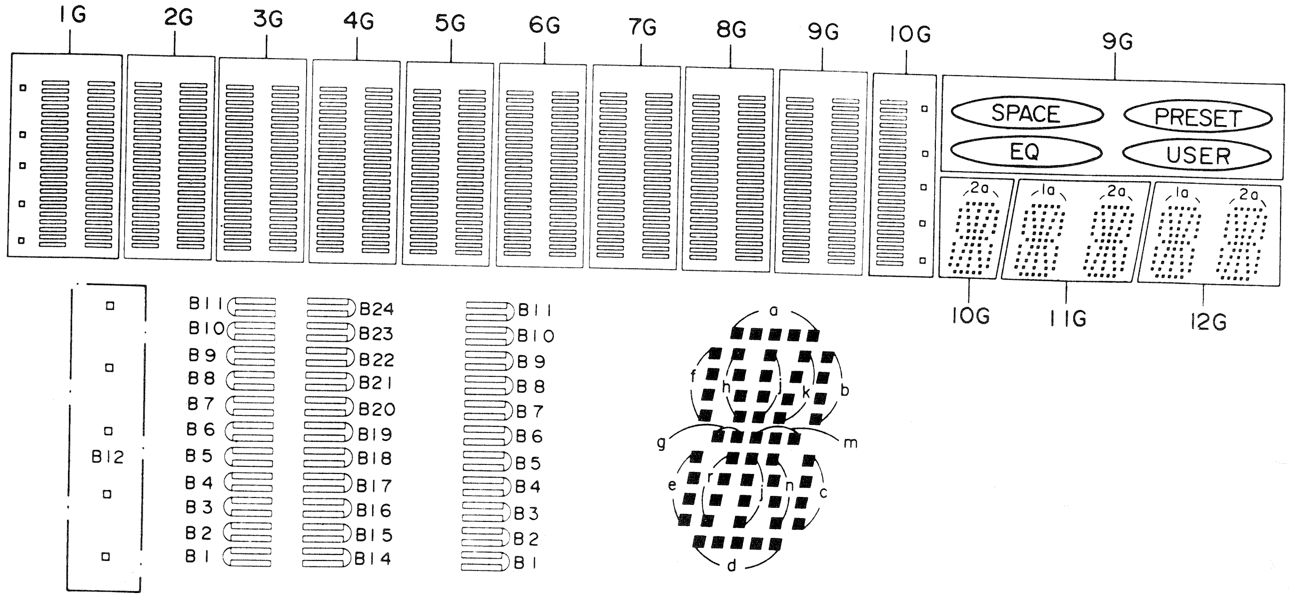

10
11
12
13
14
B MIC JACK P.C.B. (REP1454A-S)
JK701
C701
R701
CN805B
MIC
AR/HP
KARAOKE
S805
S806
R818
R819
R817
CN805A
MIC VOLUME
S804 (DEMO)
R843
C821
C802
VR701
C804
C803
C709
C710
C707
C702
R702
L801
R832
C809
R709
R707
R706
C706
R703
R705
C704
C703
IC701
R704
C705
R829
R828

■ WIRING CONNECTION DIAGRAM


DAT
PHONO
(PLAYBACK)(REC OUT)
SA-CH550
PT901 (Power transformer)
C MAIN P.C.B.
A OPERATION P.C.B.
CN801B
CN801A
CN802B
CN802A
CN803B
CN803A
CN805A
CN805B
B MIC JACK P.C.B.

■ DESCRIPTION OF FL PANEL (FL801: RSL0128-F)

•Grid assignment


1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
9G
SPACE
PRESET
EQ
USER
2a
1a
10G
11G
12G
B12
B11
B10
B9
B8
B7
B6
B5
B4
B3
B2
B1
B24
B23
B22
B21
B20
B19
B18
B17
B16
B15
B14
B11
B10
B9
B8
B7
B6
B5
B4
B3
B2
B1
a
f
h
j
k
b
g
m
e
r
n
c
d
(1G, 10G)
(1G~9G)
(10G)
(10G~12G)

Notes:

F1, F2...Filament
NP...No pin
NC...No connection
1G~12G...Grid

•Pin connection

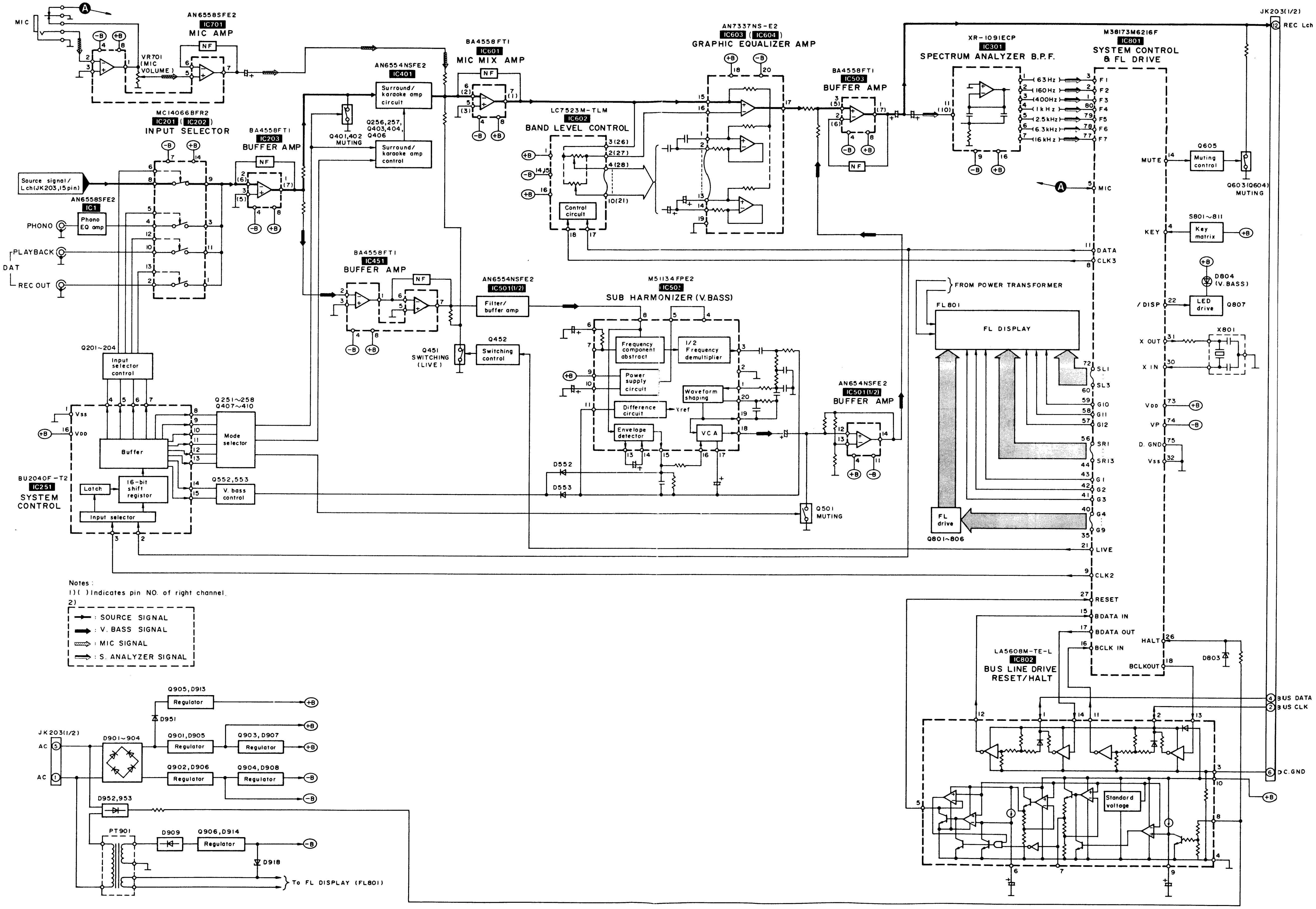
Pin No.	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Terminal Name	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F1	F1

Pin No.	66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34
Terminal Name	F2	F2	NP	NP	NC	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NC	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	NC	NC

•Anode connection

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
P1	B1	B1	B1	B1	B1	B1	B1	B1	B1	B1	1d	1d
P2	B2	B2	B2	B2	B2	B2	B2	B2	B2	B2	1c	1c
P3	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	1n	1n
P4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	1r	1r
P5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	1e	1e
P6	B6	B6	B6	B6	B6	B6	B6	B6	B6	B6	1m	1m
P7	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7	1g	1g
P8	B8	B8	B8	B8	B8	B8	B8	B8	B8	B8	1b	1b
P9	B9	B9	B9	B9	B9	B9	B9	B9	B9	B9	1k	1k
P10	B10	B10	B10	B10	B10	B10	B10	B10	B10	B10	1j	1j
P11	B11	B11	B11	B11	B11	B11	B11	B11	B11	B11	1h	1h
P12	B12	–	–	–	–	–	–	–	EQ	B12	1f	1f
P13	–	–	–	–	–	–	–	–	SPACE	–	1a	1a
P14	B14	B14	B14	B14	B14	B14	B14	B14	B14	2d	2d	2d
P15	B15	B15	B15	B15	B15	B15	B15	B15	B15	2c	2c	2c
P16	B16	B16	B16	B16	B16	B16	B16	B16	B16	2n	2n	2n
P17	B17	B17	B17	B17	B17	B17	B17	B17	B17	2r	2r	2r
P18	B18	B18	B18	B18	B18	B18	B18	B18	B18	2e	2e	2e
P19	B19	B19	B19	B19	B19	B19	B19	B19	B19	2m	2m	2m
P20	B20	B20	B20	B20	B20	B20	B20	B20	B20	2g	2g	2g
P21	B21	B21	B21	B21	B21	B21	B21	B21	B21	2b	2b	2b
P22	B22	B22	B22	B22	B22	B22	B22	B22	B22	2k	2k	2k
P23	B23	B23	B23	B23	B23	B23	B23	B23	B23	2j	2j	2j
P24	B24	B24	B24	B24	B24	B24	B24	B24	B24	2h	2h	2h
P25	–	–	–	–	–	–	–	–	USER	2f	2f	2f
P26	–	–	–	–	–	–	–	–	PRESET	2a	2a	2a

■ BLOCK DIAGRAM


MIC
AN6558SFE2
IC701
MIC AMP
NF
VR701 (MIC VOLUME)
BA4558FT1
IC601
MIC MIX AMP
AN6554NSFE2
IC401
Surround/karaoke amp circuit
Surround/karaoke amp control
Q256,257, Q403,404, Q406
Q401,402 MUTING
MC14066BFR2
IC201 (IC202)
INPUT SELECTOR
BA4558FT1
IC203
BUFFER AMP
Source signal/Lch(JK203,15pin)
AN6558SFE2
IC1
Phono EQ amp
PHONO
PLAYBACK
DAT
REC OUT
LC7523M-TLM
IC602
BAND LEVEL CONTROL
Control circuit
AN7337NS-E2
IC603 (IC604)
GRAPHIC EQUALIZER AMP
BA4558FT1
IC503
BUFFER AMP
XR-1091ECP
IC301
SPECTRUM ANALYZER B.P.F.
63Hz
160Hz
400Hz
1kHz
2.5kHz
6.3kHz
16kHz
M38173M6216F
IC801
SYSTEM CONTROL & FL DRIVE
F1
F2
F3
F4
F5
F6
F7
MIC
DATA
CLK3
JK203(1/2)
REC Lch
Q605
Muting control
MUTE
Q603(Q604) MUTING
S801~811
Key matrix
KEY
D804 (V.BASS)
LED drive
Q807
/DISP
X OUT
X IN
X801
VDD
VP
D. GND
Vss
BA4558FT1
IC451
BUFFER AMP
AN6554NSFE2
IC501(1/2)
Filter/buffer amp
Q451 SWITCHING (LIVE)
Q452
Switching control
M51134FPE2
IC502
SUB HARMONIZER (V.BASS)
Frequency component abstract
1/2 Frequency demultiplier
Power supply circuit
Waveform shaping
Difference circuit
Vref
Envelope detector
VCA
D552
D553
AN6554NSFE2
IC501(1/2)
BUFFER AMP
Q501 MUTING
FROM POWER TRANSFORMER
FL801
FL DISPLAY
FL drive
Q801~806
SL1
SL3
G10
G11
G12
SR1
SR13
G1
G2
G3
G4
G9
LIVE
CLK2
RESET
BDATA IN
BDATA OUT
BCLK IN
HALT
BCLKOUT
D803
Q201~204
Input selector control
Q251~258
Q407~410
Mode selector
Buffer
Latch
16-bit shift register
Input selector
Q552,553
V. bass control
BU2040F-T2
IC251
SYSTEM CONTROL
LA5608M-TE-L
IC802
BUS LINE DRIVE RESET/HALT
Standard voltage
BUS DATA
BUS CLK
D.GND
Q905,D913
Regulator
D951
Q901,D905
Q903,D907
Q902,D906
Q904,D908
JK203(1/2)
AC
D901~904
D952,953
PT901
D909
Q906,D914
D918
To FL DISPLAY (FL801)

Notes:
1) ( ) Indicates pin NO. of right channel.
2)
→ : SOURCE SIGNAL
➡ : V. BASS SIGNAL
⇨ : MIC SIGNAL
⟹ : S. ANALYZER SIGNAL

■ FUNCTION OF IC TERMINALS

•IC801 (M38173M6216F)

Pin No.	Signal Name	I/O	Description
1 ~ 3	F3 ~ F1	I	Spectrum analyzer input
4	KEY	I	Key input
5	MIC	I	MIC connection detection input (MIC IN="L")
6	——	—	Strobing input for TC916 4N (normally at "L") (No use)
7	——	—	No use (normally at "L") (No use)
8	CLK3	O	Clock output for M50253, switching output video (normally at "L")
9	CLK2	O	Clock output for LC7523 (normally at "L")
10	——	—	Clock output for TC9164 (normally at "L") (No use)
11	DATA	O	Data output for TC9164, BU2040, AND LC7523
12 13	——	—	No use (normally at "L")
14	MUTE	O	Muting signal output (normally at "L")
15	B.DATA IN	I	Bus data input
16	B.CLK IN	I	Bus clock input
17	B.DATA OUT	O	Bus data output (normally at "L")
18	B.CLK OUT	O	Bus clock output (normally at "L")
19	——	—	Video switching output (No use)
20	——	—	
21	LIVE	O	At "L" when SPACE control mode is LIVE
22	/DSP	O	At "H" during BASS SYNTHESIZER ON
23	——	—	No use (normally at "L")
24	——	—	Chip selection (GND connection) H: with JOG L: without JOG
25	——	—	No use (normally at "L")
26	HALT	I	Power failure detection input (AC 50 Hz or 60 Hz)
27	RESET	I	RESET input
28	GND OR XCIN	I	Pulls up to +10 V
29	——	—	No use (free terminal)
30	XIN	I	Ceramic oscillator connection for system clock generation (6 MHz)
31	XOUT	O	
32	V_{SS}	—	GND connection
33	——	—	JOG input (Ground connection)
34	——	—	
35 ~ 40	G9 ~ G4	O	Grid output for fluorescent character display tube
41 ~ 43	G3 ~ G1	O	Grid output for fluorescent character display tube
44 ~ 56	SR13 ~ SR1	O	Segment output for fluorescent character display tube
57 ~ 59	G12 ~ G10	O	Grid output for fluorescent character display tube
60 ~ 72	SL13 ~ SL1	O	Segment output for fluorescent character display tube
73	V_{DD} Back-up	—	+5 V connection
74	VP	—	VP connection for fluorescent character display tube
75	D.GND	—	GND connection
76	VREF	—	Reference voltage for A/D converter (connected to V_{CC})
77 ~ 80	F7 ~ F4	I	Spectrum analyzer input

■ REPLACEMENT PARTS LIST

Notes: •Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
•The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	AN6558SFE2	I. C, PHONO EQ AMP.	
IC201	MC14066BFR2	I. C, INPUT SELECTOR	
IC202	MC14066BFR2	I. C, INPUT SELECTOR	
IC203	SVIBA4558F	I. C, BUFFER AMP	
IC251	BU2040F-T2	I. C, SYSTEM CONTROL	
IC301	XR-1091ECP	I. C, SPECTRUM ANALYZER	
IC401	AN6554NSFE2	I. C, SURROUND AMP	
IC451	SVIBA4558F	I. C, BUFFER AMP	
IC501	AN6554NSFE2	I. C, FILTER/BUFFER AMP	
IC502	M51134FPE2	I. C, SUB HARMONIZER	
IC503	SVIBA4558F	I. C, BUFFER AMP	
IC601	SVIBA4558F	I. C, MIC MIX AMP	
IC602	LC7523M-TLM	I. C, BAND LEVEL CONTROL	
IC603	AN7337NS-E2	I. C, GRAPHIC EQUALIZER AMP	
IC604	AN7337NS-E2	I. C, GRAPHIC EQUALIZER AMP	
IC701	AN6558SFE2	I. C, MIC AMP	
IC801	M38173M6216F	I. C, FL DRIVE/SYSTEM CONT	
IC802	LA5608M-TE-L	I. C, BUS LINE DRIVE/RESET	
		TRANSISTOR(S)	
Q201-204	UN4111	TRANSISTOR	
Q251-255	UN4111	TRANSISTOR	
Q256	2SD2144S	TRANSISTOR	
Q257, 258	UN4111	TRANSISTOR	
Q401, 402	2SD2144S	TRANSISTOR	
Q403, 404	2SJ164PQRTA	TRANSISTOR	
Q406, 407	2SD2144S	TRANSISTOR	
Q408-410	UN4211	TRANSISTOR	
Q451	2SD2144S	TRANSISTOR	
Q452	UN4111	TRANSISTOR	
Q501	2SD2144S	TRANSISTOR	
Q552, 553	UN4211	TRANSISTOR	
Q603, 604	2SC3327-A	TRANSISTOR	
Q605	UN4111	TRANSISTOR	
Q801-806	UN4111	TRANSISTOR	
Q807	UN4211	TRANSISTOR	
Q901	2SD2037DEFTA	TRANSISTOR	
Q902	2SB1357DEFTA	TRANSISTOR	
Q903	2SC3311A-Q	TRANSISTOR	
Q904	2SA1309A-R	TRANSISTOR	
Q905	2SD2037DEFTA	TRANSISTOR	
Q906	2SA1309A-R	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE(S)	
D401-404	MA165	DIODE	
D552-554	MA165	DIODE	
D602	MA165	DIODE	
D803	MA4051MTA	DIODE	
D804	LN873RP-C	L. E. D.	
D806, 807	1SS291TA	DIODE	
D851	1SS291TA	DIODE	
D901-904	1SR35200TB	DIODE	⚠
D905, 906	MA4100MTA	DIODE	
D907, 908	MA4068L	DIODE	
D909	1SR35200TB	DIODE	⚠
D913	MA4062-H	DIODE	
D914	MA4300M	DIODE	
D918	MA4051MTA	DIODE	⚠
D951	1SR35200TB	DIODE	⚠
D952, 953	MA185TA	DIODE	
		VARIABLE RESISTOR	
VR701	EVJ02BF01B14	V. R, MIC VOLUME	
		COMPONENT COMBINATION	
Z601, 602	EXBF7E224JYV	COMPONENT COMBINATION	
		COIL(S)	
L101, 102	ELEXT101KA9	COIL	
L301-303	ELEPK4R7KA	COIL	
L801	ELEXT4R7KA9	COIL	
		OSCILLATOR(S)	
X801	RSXY6M00M01T	OSCILLATOR(6MHz)	
		DISPLAY	
FL801	RSL0128-F	FL DISPLAY	⚠
		SWITCH(ES)	
S801	EVQ21405R	SW, DISPLAY	
S802	EVQ21405R	SW, EFFECT(DOWN)	
S803	EVQ21405R	SW, EFFECT(UP)	
S804	EVQ21405R	SW, DEMO	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads(pF) F=Farads(F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000(OHM) , 1M=1,000k(OHM)

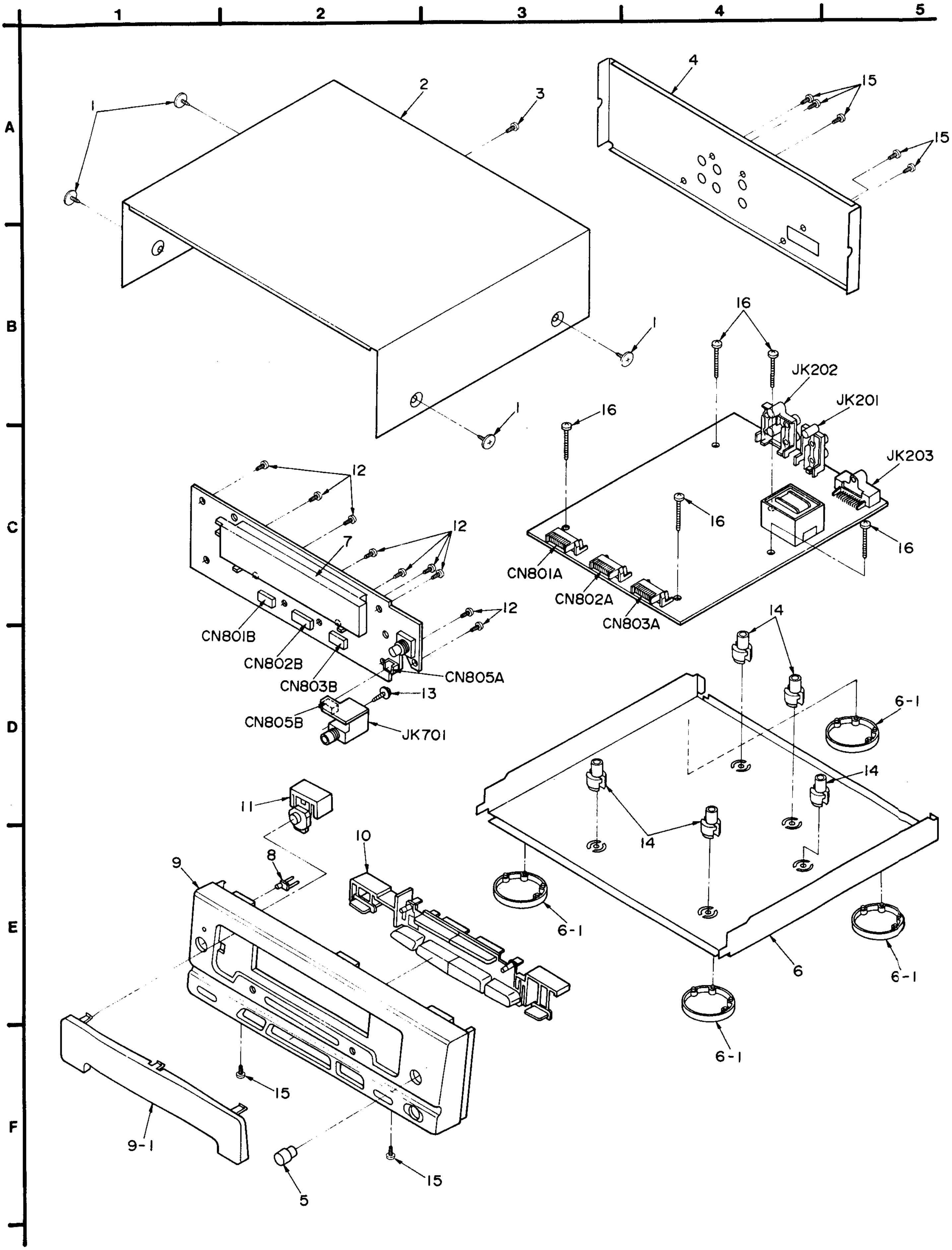
Ref. No.	Part No.	Values & Remarks
		RESISTORS
R5, 6	ERDS2TJ331	1/4W 330
R7, 8	ERDS2TJ181T	1/4W 180
R9	ERDS2TJ184T	1/4W 180K
R10	ERDS2TJ184T	1/4W 180K
R11, 12	ERDS2TJ123	1/4W 12K
R13, 14	ERDS2TJ680T	1/4W 68
R15, 16	ERDS2TJ222	1/4W 2.2K
R17, 18	ERDS2TJ102	1/4W 1K
R201, 202	ERDS2TJ102	1/4W 1K
R203, 204	ERDS2TJ473	1/4W 47K
R205, 206	ERDS2TJ123	1/4W 12K
R207, 208	ERDS2TJ473	1/4W 47K
R209, 210	ERDS2TJ122	1/4W 1.2K
R211, 212	ERDS2TJ224T	1/4W 220K
R213-216	ERDS2TJ223	1/4W 22K
R221-224	ERDS2TJ333	1/4W 33K
R225, 226	ERDS2TJ102	1/4W 1K
R251, 252	ERDS2TJ222	1/4W 2.2K
R253	ERDS2TJ272T	1/4W 2.7K
R291-293	ERDS2TJ333	1/4W 33K
R294	ERDS2TJ104	1/4W 100K
R301, 302	ERDS2TJ683	1/4W 68K
R303, 304	ERDS2TJ103	1/4W 10K
R305	ERDS2TJ101	1/4W 100
R306	ERDS2TJ222	1/4W 2.2K
R307	ERDS2TJ152	1/4W 1.5K
R308, 309	ERDS2TJ101	1/4W 100
R311-317	ERDS2TJ122	1/4W 1.2K
R318	ERDS2TJ104	1/4W 100K
R401, 402	ERDS2TJ152	1/4W 1.5K
R403, 404	ERDS2TJ683	1/4W 68K
R405, 406	ERDS2TJ682T	1/4W 6.8K
R407, 408	ERDS2TJ273	1/4W 27K
R409, 410	ERDS2TJ103	1/4W 10K
R411, 412	ERDS2TJ393	1/4W 39K
R413, 416	ERDS2TJ103	1/4W 10K
R417, 418	ERDS2TJ223	1/4W 22K
R421-423	ERDS2TJ223	1/4W 22K
R424	ERDS2TJ332	1/4W 3.3K
R425	ERDS2TJ152	1/4W 1.5K
R426	ERDS2TJ221	1/4W 220
R427	ERDS2TJ821	1/4W 820
R428	ERDS2TJ222	1/4W 2.2K
R429, 430	ERDS2TJ102	1/4W 1K
R431	ERDS2TJ105T	1/4W 1M
R435	ERDS2TJ103	1/4W 10K

Ref. No.	Part No.	Values & Remarks
R436, 437	ERDS2TJ105T	1/4W 1M
R438	ERDS2TJ102	1/4W 1K
R451, 452	ERDS2TJ223	1/4W 22K
R453	ERDS2TJ123	1/4W 12K
R454, 455	ERDS2TJ223	1/4W 22K
R456	ERDS2TJ332	1/4W 3.3K
R457	ERDS2TJ271	1/4W 270
R458, 459	ERDS2TJ223	1/4W 22K
R461	ERDS2TJ102	1/4W 1K
R462	ERDS2TJ105T	1/4W 1M
R463	ERDS2TJ392T	1/4W 3.9K
R498	ERDS2TJ103	1/4W 10K
R499	ERDS2TJ105T	1/4W 1M
R501	ERDS2TJ223	1/4W 22K
R502	ERDS2TJ271	1/4W 270
R503, 504	ERDAS3G753T	1/4W 75K
R505, 506	ERDAS3G563T	1/4W 56K
R507	ERDAS3G122	1/4W 1.2K
R508	ERDAS3G124T	1/4W 120K
R509	ERDS2TJ222	1/4W 2.2K
R510-512	ERDS2TJ224T	1/4W 220K
R513	ERDS2TJ824	1/4W 820K
R514	ERDS2TJ683	1/4W 68K
R515, 516	ERDS2TJ332	1/4W 3.3K
R517, 518	ERDS2TJ224T	1/4W 220K
R519-528	ERDS2TJ103	1/4W 10K
R529	ERDS2TJ104	1/4W 100K
R530	ERDS2TJ224T	1/4W 220K
R531	ERDAS3G332T	1/4W 3.3K
R532	ERDS2TJ101	1/4W 100
R541	ERDAS3G753T	1/4W 75K
R542	ERDAS3G102T	1/4W 1K
R560	ERDS2TJ563	1/4W 56K
R561	ERDS2TJ473	1/4W 47K
R562	ERDS2TJ563	1/4W 56K
R563	ERDS2TJ823T	1/4W 82K
R564	ERDS2TJ102	1/4W 1K
R565	ERDS2TJ105T	1/4W 1M
R567, 568	ERDS2TJ472	1/4W 4.7K
R601, 602	ERDS2TJ563	1/4W 56K
R605, 606	ERDS2TJ224T	1/4W 220K
R607, 608	ERDS2TJ153	1/4W 15K
R609, 610	ERDS2TJ103	1/4W 10K
R611, 612	ERDS2TJ102	1/4W 1K
R613, 614	ERDS2TJ104	1/4W 100K
R617, 618	ERDS2TJ102	1/4W 1K
R619, 620	ERDS2TJ393	1/4W 39K
R624	ERDS2TJ334	1/4W 330K
R625, 626	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks
R627	ERDS2TJ472	1/4W 4.7K
R631, 632	ERDS2TJ123	1/4W 12K
R633, 634	ERDS2TJ223	1/4W 22K
R635, 636	ERDS2TJ224T	1/4W 220K
R637, 638	ERDS2TJ223	1/4W 22K
R691, 692	ERDS2TJ102	1/4W 1K
R693, 694	ERDS2TJ472	1/4W 4.7K
R701	ERDS2TJ102	1/4W 1K
R702	ERDS2TJ473	1/4W 47K
R703	ERDS2TJ102	1/4W 1K
R704	ERDS2TJ474	1/4W 470K
R705	ERDS2TJ123	1/4W 12K
R706	ERDS2TJ104	1/4W 100K
R707	ERDS2TJ562	1/4W 5.6K
R708	ERDS2TJ473	1/4W 47K
R731	ERDS2TJ102	1/4W 1K
R801-806	ERDS2TJ104	1/4W 100K
R807	ERDS2TJ101	1/4W 100
R810	ERDS2TJ104	1/4W 100K
R812	ERDS2TJ103	1/4W 10K
R813	ERDS2TJ102	1/4W 1K
R814	ERDS2TJ473	1/4W 47K
R815	ERDS2TJ183T	1/4W 18K
R816	ERDS2TJ912T	1/4W 9.1K
R817	ERDS2TJ562	1/4W 5.6K
R818	ERDS2TJ332	1/4W 3.3K
R819	ERDS2TJ272T	1/4W 2.7K
R820	ERDS2TJ222	1/4W 2.2K
R821	ERDS2TJ182	1/4W 1.8K
R822	ERDS2TJ122	1/4W 1.2K
R823	ERDS2TJ152	1/4W 1.5K
R824	ERDS2TJ221	1/4W 220
R826	ERDS2TJ103	1/4W 10K
R827	ERDS2TJ393	1/4W 39K
R828-835	ERDS2TJ104	1/4W 100K
R840-842	ERDS2TJ103	1/4W 10K
R843	ERDS2TJ102	1/4W 1K
R861	ERDS2TJ102	1/4W 1K
R862	ERDS2TJ223	1/4W 22K
R863	ERDS2TJ470	1/4W 47
R901, 902	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R903	ERD25FJ2R2	1/4W 2.2 ⚠
R904	ERDS2TJ102	1/4W 1K
R905, 906	ERDS2TJ100	1/4W 10
R907, 908	ERDS2TJ102	1/4W 1K
R910	ERDS2TJ102	1/4W 1K
R911	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R912	ERDS2TJ101	1/4W 100
R915	ERDS2TJ332	1/4W 3.3K

Ref. No.	Part No.	Part Name & Description	Remarks
S805	EVQ21405R	SW, KARAOKE	
S806	EVQ21405R	SW, CAR/H. P	
S807	EVQ21405R	SW, EQ MODE	
S808	EVQ21405R	SW, SPACE MODE	
S809	EVQ21405R	SW, ON/FLAT	
S810	EVQ21405R	SW, PRESET/USER	
S811	EVQ21405R	SW, V. BASS	
		CONNECTOR(S)	
CN801A	RJU003K008M1	SOCKET(8P)	
CN802A	RJU003K010M1	SOCKET(10P)	
CN803A	RJU003K008M1	SOCKET(8P)	
CN805A	RJT057W004-1	SONNECTOR(4P)	
CN801B	RJT003K008-1	SONNECTOR(8P)	
CN802B	RJT003K010-1	SONNECTOR(10P)	
CN803B	RJT003K008-1	SONNECTOR(8P)	
CN805B	RJU057W004	SONNECTOR(4P)	
		POWER TRANSFORMER	
PT901	RTP1I4G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK201	SJF3068N	JACK, PHONO	
JK202	SJF3069-5N	JACK, DAT	
JK203	RJT065K15	CONNECTOR(15P)	
JK701	RJJ65MA02	JACK, MIC	
		EARTH TERMINAL	
E901	SNE1004-1	GND PLATE	

■ CABINET PARTS LOCATION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Ref. No.	Part No.	Values & Remarks
R916, 917	ERDS2TJ820	1/4W 82 ⚠
R951	ERDS2TJ562	1/4W 5.6K
R952, 953	ERDS2TJ100	1/4W 10
R954, 955	ERDS2TJ2R2T	1/4W 2.2 ⚠
R971	ERDS2TJ102	1/4W 1K
		CAPACITORS
C1, 2	ECBT1H102KB5	50V 1000P
C3, 4	ECEA1AKA330B	10V 33U
C5, 6	ECBT0J223MS5	6.3V 0.022U
C7, 8	ECBT1C682KR5	16V 6800P
C9	ECEA1CKA100B	16V 10U
C10	ECEA1CKA100B	16V 10U
C11, 12	ECBT1E103ZF	25V 0.01U
C101, 102	ECBT1H180J5	50V 18P
C103-106	ECBT1H101KB5	50V 100P
C107, 108	ECBT1H151KB5	50V 150P
C109-112	ECBT1H101KB5	50V 100P
C201, 202	ECEA1HKA3R3B	50V 3.3U
C203, 204	ECBT1H102KB5	50V 1000P
C205, 206	ECBT1H560J5	50V 56P
C207, 208	ECBT1E103ZF	25V 0.01U
C209, 210	ECBT1H104ZF5	50V 0.1U
C251, 252	ECBT1H470J5	50V 47P
C253	ECBT1E103ZF	25V 0.01U
C291-294	ECEA1CKA100B	16V 10U
C301, 302	ECEA1HKA3R3B	50V 3.3U
C303, 304	ECBT1H101KB5	50V 100P
C305	ECEA1CKA100B	16V 10U
C306	ECBT1H102KB5	50V 1000P
C307, 308	ECEA1AKA330B	10V 33U
C309-311	ECBT1H102KB5	50V 1000P
C401	ECFR1E473KR	25V 0.047U
C402	ECEA1CKA100B	16V 10U
C403	ECFR1E823KR	25V 0.082U
C404	ECFR1E123KR	25V 0.012U
C405	ECBT0J223MS5	6.3V 0.022U
C406, 407	ECBT1E103ZF	25V 0.01U
C451	ECBT1H102KB5	50V 1000P
C452	ECEA1HKA3R3B	50V 3.3U
C453, 454	ECBT1E103ZF	25V 0.01U
C501, 502	ECQB1H393JF3	50V 0.039U
C503	ECQV1H274JM3	50V 0.27U
C504	ECQB1H272JF3	50V 2700P
C505, 506	ECQV1H224JM3	50V 0.22U
C507	ECEA1CKA100B	16V 10U
C508	ECEA1HKAR33B	50V 0.33U
C509	ECEA1CKA470B	16V 47U
C510	ECEA1HKA4R7B	50V 4.7U
C511, 512	ECQV1H124JM3	50V 0.12U
C513	ECBT1C332KR5	16V 3300P

Ref. No.	Part No.	Values & Remarks
C514	ECFR1E563KR	25V 0.056U
C515	ECBT1H100J5	50V 10P
C516	ECEA1CKA100B	16V 10U
C517	ECEA1HKN010B	50V 1U ⚠
C518	ECEA1CKA100B	16V 10U
C519	ECEA1CKA470B	16V 47U
C520	ECEA1CKA100B	16V 10U
C521, 522	ECFR1E273KR	25V 0.027U
C523, 524	ECBT1H221KB5	50V 220P
C525, 526	ECEA1HKA3R3B	50V 3.3U
C530	ECBT0J223MS5	6.3V 0.022U
C533, 534	ECEA1CKA100B	16V 10U
C535, 536	ECBT1H102KB5	50V 1000P
C555-559	ECBT1E103ZF	25V 0.01U
C601, 602	ECBT1H101KB5	50V 100P
C603-606	ECBT1E103ZF	25V 0.01U
C607, 608	ECBT1H121KB5	50V 120P
C609, 610	ECBT1H101KB5	50V 100P
C611, 612	ECQV1H474JM3	50V 0.47U
C613, 614	ECQV1H564JM3	50V 0.56U
C615, 616	ECFR1E683KR	25V 0.068U
C617, 618	ECEA1HKAR47B	50V 0.47U
C619, 620	ECBA1H681KB5	50V 680P
C621, 622	ECBT1C472KR5	16V 4700P
C623, 624	ECBT1C222KR5	16V 2200P
C625, 626	ECBT1C103KS5	16V 0.01U
C627, 628	ECBT1C562KR5	16V 5600P
C629, 630	ECFR1E273KR	25V 0.027U
C631, 632	ECFR1E153KR	25V 0.015U
C633, 634	ECFR1E683KR	25V 0.068U
C635, 636	ECFR1E333KR	25V 0.033U
C637, 638	ECEA1HKAR15B	50V 0.15U
C641, 642	ECEA1HKA3R3B	50V 3.3U
C647	ECEA1HKA3R3B	50V 3.3U
C648, 649	ECBT1E103ZF	25V 0.01U
C651, 652	ECEA1HKA3R3B	50V 3.3U
C653	ECEA1HKA4R7B	50V 4.7U
C655-657	ECBT1E103ZF	25V 0.01U
C701, 702	ECBT1H221KB5	50V 220P
C703	ECEA1HKA3R3B	50V 3.3U
C704	ECBT1H151KB5	50V 150P
C705	ECEA1CKA100B	16V 10U
C706	ECBT1H101KB5	50V 100P
C707	ECEA1HKA3R3B	50V 3.3U
C708	ECBT1H471KB5	50V 470P
C709, 710	ECBT1E103ZF	25V 0.01U
C731	ECBT1H102KB5	50V 1000P
C801, 802	ECBT1E103ZF	25V 0.01U
C803, 804	ECEA1HKS010	50V 1U ⚠
C805	ECBT1E103ZF	25V 0.01U
C807	ECEA0JKS101B	6.3V 100U
C809	ECEA0JU102	6.3V 1000U

Ref. No.	Part No.	Values & Remarks
C811	ECBT1E103ZF	25V 0.01U
C812	ECEA0JKS101B	6.3V 100U
C821	ECBT1E103ZF	25V 0.01U
C822	ECBT1H104ZF5	50V 0.1U
C851	ECEA1HKAR33B	50V 0.33U
C852	ECEA1HKAR22B	50V 0.22U
C861	ECBT0J223MS5	6.3V 0.022U
C901, 902	ECKT1H223ZF	50V 0.022U ⚠
C903, 904	ECA1EM471B	25V 470U
C905, 906	ECBT1E103ZF	25V 0.01U
C907, 908	ECEA1CKA100B	16V 10U
C909, 910	ECEA1CKA470B	16V 47U
C911, 912	ECBT1E103ZF	25V 0.01U
C913, 914	ECEA1CKA100B	16V 10U
C915	ECBT1E103ZF	25V 0.01U
C916	ECEA1HKA100B	50V 10U
C918	ECA1HM221B	50V 220U
C921	ECBT1E103ZF	25V 0.01U
C922	ECEA1CKA100B	16V 10U
C951	ECA1EM471B	25V 470U
C952-955	ECKR1H103ZF5	50V 0.01U

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0203-1K	CABINET	
3	XTB3+8JFZ	SCREW	
4	RGR0146B-E	REAR PANEL	
5	RGW0129-K1	MIC VOLUME KNOB	
6	RFKJHCH550NK	BOTTOM BOARD ASS'Y	
6-1	RKA0055-N	FOOT	
7	RMN0184-1	HOLDER	
8	RGL0169-Q	LENS	
9	RFKGHCH550EK	FRONT PANEL ASS'Y	
9-1	RKW0226-K	FL PANEL	
10	RGU0770-K	EQ BUTTON	
11	RGU0771-K	BASS BUTTON	
12	XTBS26+8J	SCREW	
13	XTWS3+10T	SCREW	
14	SHE185-2	HOLDER	
15	XTBS3+8JFZ1	SCREW	
16	XTB3+16JFZ	SCREW	

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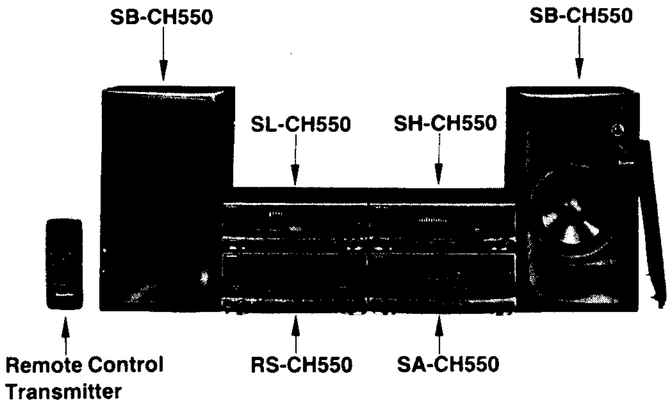
ORDER NO. AD9208265C8

Service Manual

Tuner Amplifier

Tuner Amplifier

SA-CH550



Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

Colour

(K) .... Black Type

Areas

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	
(GC)	Asia, Latin America, Middle Near East and Africa	
(GN)	Oceania	

System: SC-CH550

SPECIFICATIONS

(DIN 45 500)

■ MAIN AMP. SECTION

Power output	
DIN 1 kHz THD 1%, both channel driven	2×35 W (6Ω)
Total harmonic distortion	
Rated power at 1 kHz	1% (6Ω)
Half power at 1 kHz	0.09% (6Ω)
Load impedance	
MAIN	6–8Ω
SURROUND	8Ω
S/N (rated power)	84 dB (IHF, A 88 dB)
Frequency response	40 Hz–30 kHz (−3 dB)

■ FM TUNER SECTION

Frequency range	87.50 Hz–108.00 MHz (0.05 MHz steps)
Sensitivity	1.8 μV (IHF, usable)
S/N 26 dB	1.5 μV (75Ω)
S/N	
MONO	70 dB (75 dB, IHF)
Stereo separation at 1 kHz	35 dB
Antenna terminal(s)	75Ω (unbalanced)

■ AM TUNER SECTION

Frequency range	
MW	
For (E), (EB), (EG), (GN) areas	522–1611 kHz (9 kHz steps) 530–1620 kHz (10 kHz steps)
For (GC) area	531–1602 kHz (9 kHz steps) 530–1600 kHz (10 kHz steps)
LW	
For (E), (EB), (EG), (GN) areas	144–288 kHz (9kHz steps)
For (GC) area	153–279 kHz (9kHz steps)
Sensitivity (SN 20 dB)	
MW (at 999 kHz, 1000 kHz)	500 μV/m
LW (at 254 kHz)	50 μV

■ TIMER SECTION

Clock	Quartz-lock type
Function	24-hour programmable; Play timer (1 time) Rec timer (1 time) Sleep (120 min. 1 min. intervals)
Setting	1 minute–23 hours. 59 minutes (1 min. intervals)

■ GENERAL

Power consumption	120 W
Power supply	
For (E), (EG) areas	AC 50/60 Hz, 230 V
For (EB), (GN) areas	AC 50/60 Hz, 230 V—240 V
For (GC) area	AC 50/60 Hz, 110/127/220/240 V
Dimension (W×H×D)	270×119×332 mm
Weight	4.7 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH 550

***(E), (EB), (EG) areas... Made in PAES**

Technics

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■ BEFORE REPAIR

(1) Turn off the power supply. Using a 10Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.

(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50/60 Hz in NO SIGNAL mode is mode should be shown below with respect to supply voltage 110 V/127 V/ 220 V/240 V.

Power supply voltage	AC 110~127 V	AC 220~240 V	AC 230 V	AC 240 V
Consumed current 50 Hz	153~285 mA	106~158 mA	93~140 mA	106~158 mA

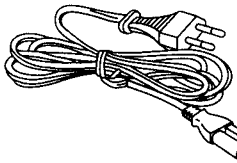
■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:
·No sound is heard when the power is switched ON.
·Sound stops during a performance.
The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

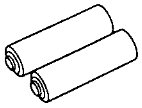
Note:
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

■ ACCESSORIES

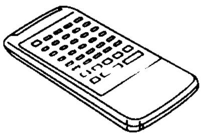


(RJA0019-1K) for (E), (EG) areas
(VJA0733) for (EB) area
(RJA0004) for (GC) area
(SJA173) for (GN) area

- AC power supply cord .... 1 pc.

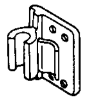


- Remote control batteries
  UM-4, AAA, R03 .... 2 pcs.



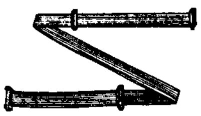
(RAK-SC310W)

- Remote control transmitter .... 1 pc.



(SMA233-1M)

- Antenna holder .... 1 pc.

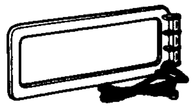


(REX0462)

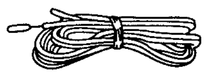
- Flat cable .... 1 pc.

(XTN3+10AFZ)

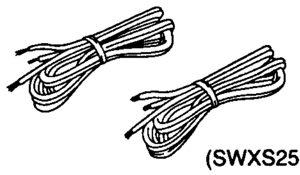
- Mounting screws .... 2 pcs.


(SPB1163T)

•LW/MW loop antenna .... 1 pc.


(RSA0007) for (E), (EB), (EG) areas
(RSA0006) for (GC), (GN) areas

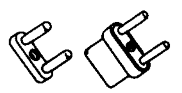
•FM indoor antenna .... 1 pc.


(SWXS257M)

•Speaker cords .... 2 pcs.

(SJP9009) for (EB) area only

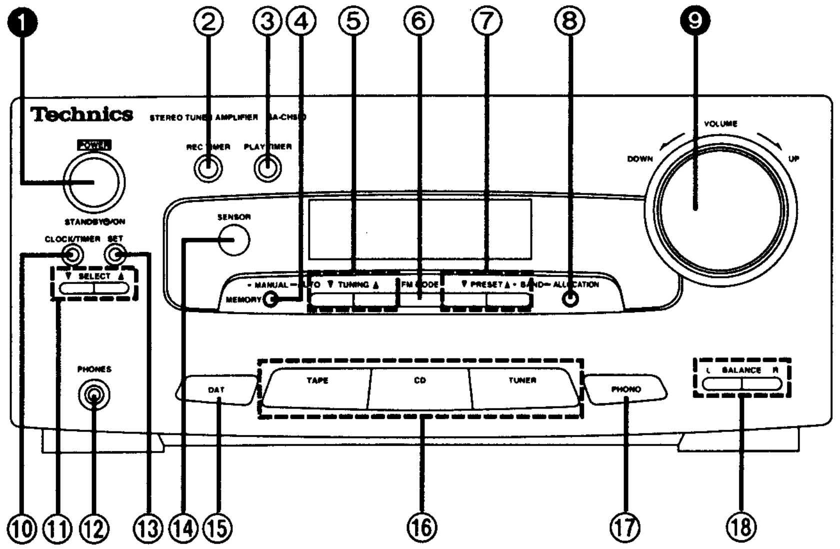
•Attachment plug .... 1 pc.


(SJP9215) for (GC) area only

•Power plug adaptor .... 1 pc.

Note:
The configurations of AC power supply cord and FM indoor antenna differ according to area.

■ LOCATION OF CONTROLS



❶ Power "STANDBY ⏻/ON" switch (POWER/STANDBY ⏻ /ON)
This switch switches ON and OFF the secondary circuit power only. The unit is in the "standby" condition when this switch is set to the STANDBY ⏻ position. Regardless of the switch setting, the primary circuit is always "live" as long as the power cord is connected to an electrical outlet.

② Timer recording button (REC TIMER)
Press to confirm, exit or reset the record timer.

③ Timer play button (PLAY TIMER)
Press to confirm, exit or reset the play timer.

④ Preset memory button (MEMORY, -MANUAL, -AUTO)
Press to put a broadcast station into the memory.

The functions indicated by the numbers with black background (for example ❶) can also be activated from the remote control.

⑤ Tuning buttons (▼ TUNING ▲)
Use to tune in a desired broadcast station.

⑥ FM mode button (FM MODE)
Press to select the FM listening mode (stereo or monaural) during FM broadcasts.

⑦ Preset tuning buttons (▼ PRESET ▲)
Use to select channel number for a broadcast station which has been stored in the tuner's memory.

⑧ Band select/allocation change button (-BAND -ALLOCATION)
Press to select the MW, LW or FM radio band.
Press and hold to change the MW frequency step.

❾ Volume level control (VOLUME)
Turn to adjust the volume level.
Note that -- dB is the lowest volume setting and 0 dB is the highest.

⑩ Clock/timer button (CLOCK/TIMER)
Press to select the clock set mode or desired timer mode.

⑪ Timer select buttons (▼ SELECT ▲)
Use when setting the current time and timer.

⑫ Headphones jack (PHONES)
Plug headphones cord into this jack.

⑬ Setting button (SET)
Press to set the present time in the clock mode, or set the various selection in the timer mode.

⑭ Remote control signal sensor (SENSOR)
Receives the signals from the remote control.

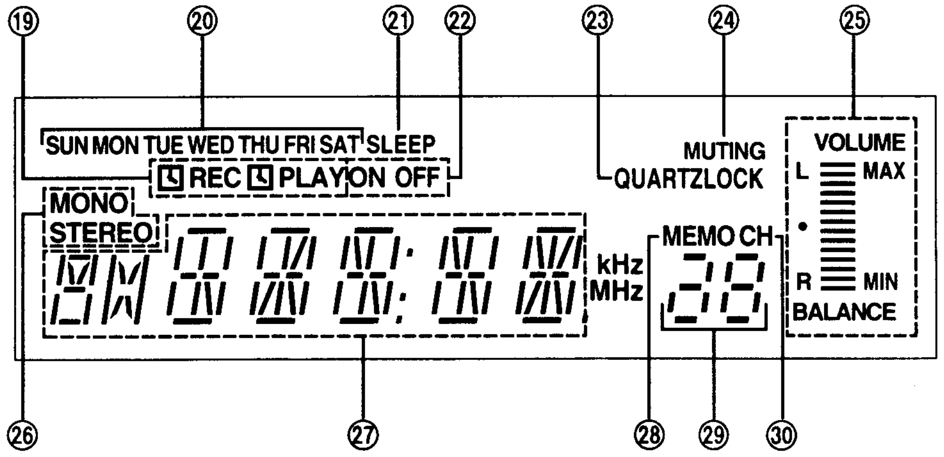
⑮ DAT input select button (DAT)
(Only when you connect the DAT to this system) Press to select the DAT source.

⑯ Input select buttons (TAPE, CD, TUNER)
Press to select the sound source.

⑰ PHONO input select button (PHONO)
(Only when you connect an analog player to the PHONO terminal of this unit) Press to select the PHONO source.

⑱ Balance adjustment buttons (L BALANCE R)
Use to adjust the volume balance between left and right speakers.

•Display section



⑲ Timer mode indicators
REC: Lights when you have set the record timer mode.
PLAY: Lights when you have set the play timer mode.

⑳ Day indicators (SUN–SAT)
Shows the day of the week or the day the timer has been set for.

㉑ Sleep timer indicator (SLEEP)
Lights when you have set the sleep timer mode.

㉒ Timer on/off indicator (ON, OFF)
Lights together with the setting time to show the timer ON time and OFF time.

㉓ Quartz lock indicator (QUARTZLOCK)
Lights when you precisely tune in a broadcast station.

㉔ Muting indicator (MUTING)
Lights when you activate the muting mode.

㉕ Volume level/balance display
Shows the volume level and left-right balance.

㉖ FM STEREO/MONO indicator (MONO, STEREO)
"STEREO" lights when an FM stereo broadcast is being received. If you press this button to select monaural mode, "MONO" lights.

㉗ Alpha-numeric display
Shows the selected source, present time, and the contents of the timer setting, received frequencies, volume level.

㉘ Memory indicator (MEMO)
Lights when the preset memory button is pressed.

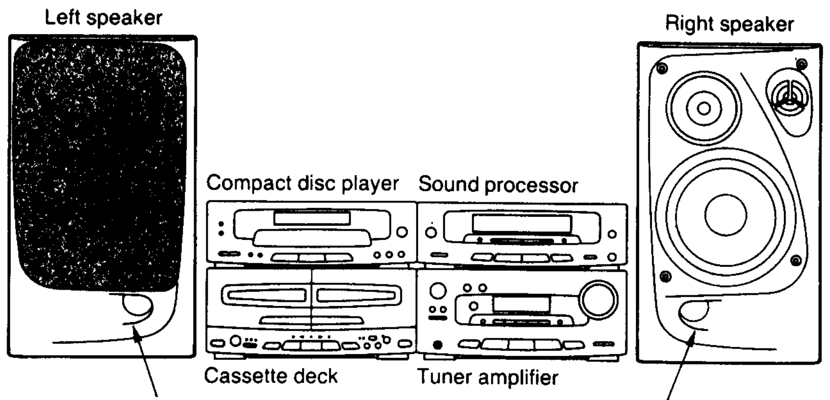
㉙ Preset channel display
Shows the preset channel you select.

㉚ Channel indicator (CH)
Lights when the unit is in the preset tuning mode.

■ STACKING THE COMPONENTS

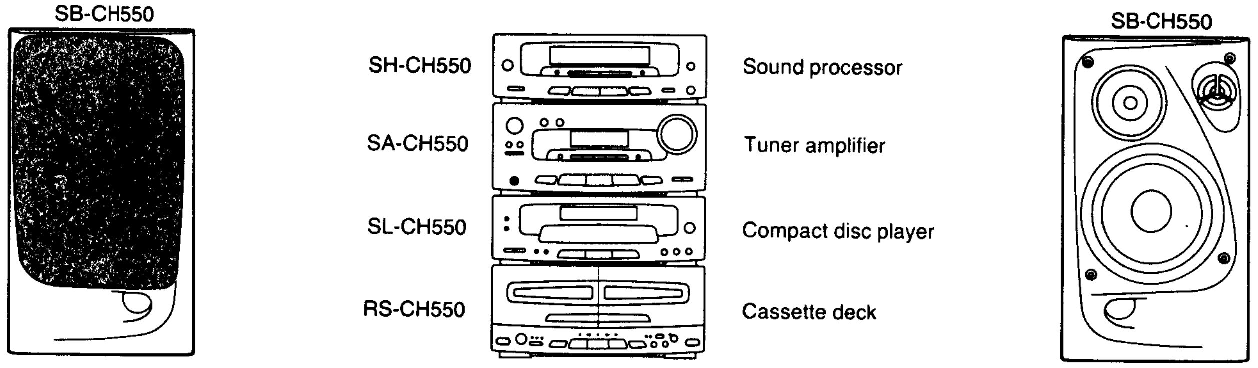
Install the various components as shown below.

■ Horizontal stacking

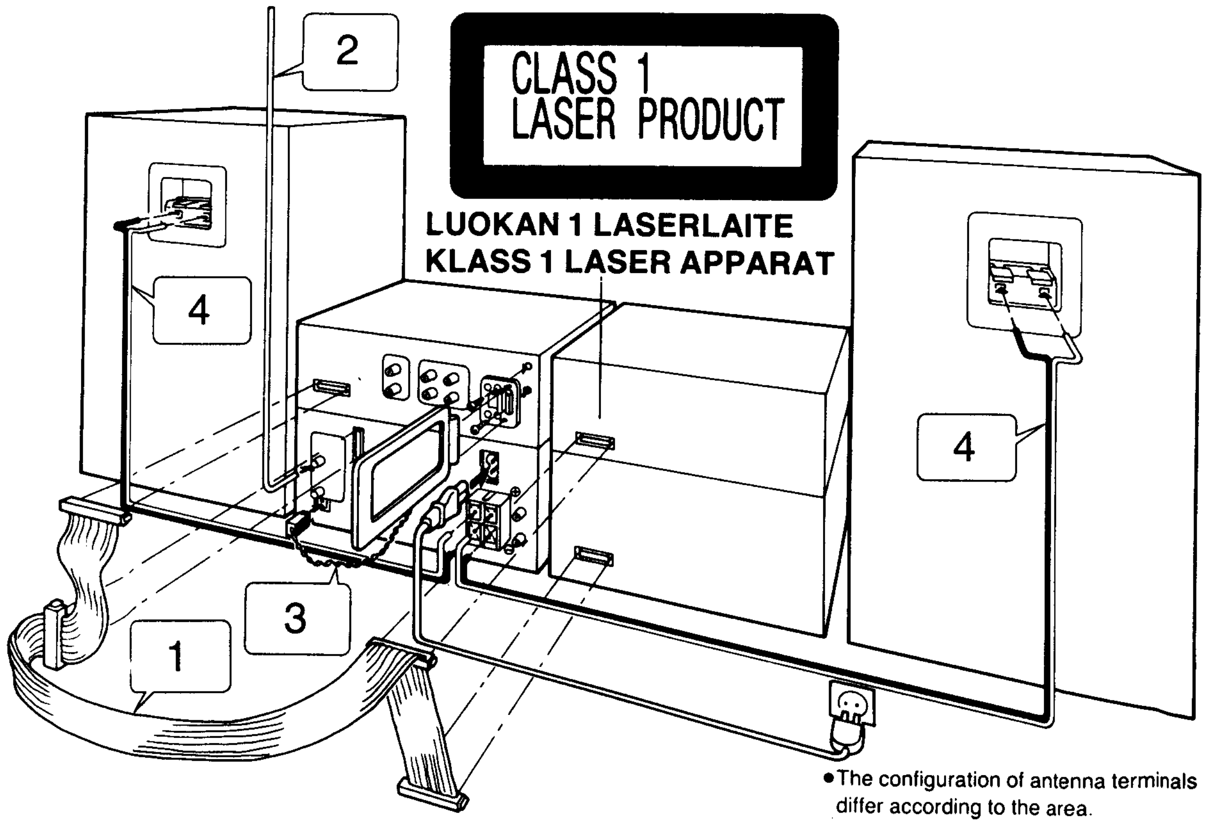

Left speaker
Right speaker
Compact disc player
Sound processor
Cassette deck
Tuner amplifier

Place both speakers so that the bass-reflex port faces toward the system.

■ Vertical stacking

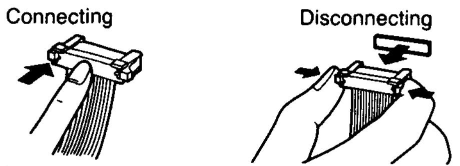

SB-CH550
SH-CH550
Sound processor
SA-CH550
Tuner amplifier
SL-CH550
Compact disc player
RS-CH550
Cassette deck
SB-CH550

■ CONNECTIONS


2
CLASS 1
LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
4
4
3
1

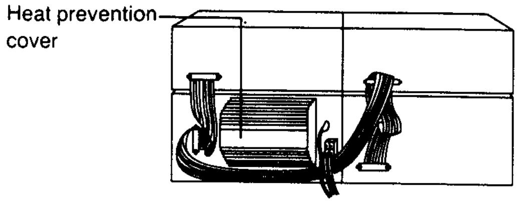
- The configuration of antenna terminals differ according to the area.

1 Connect the flat cable.


Connecting
Disconnecting

Hold the connector with the recessed part up and press in at the center until you hear a click.
First connect the blue-colored connector to the terminal of the sound processor (A), then connect the rest in the order B, C, D.
The white line should be on the right side. (Only for the tuner amplifier, the white line should be below.)

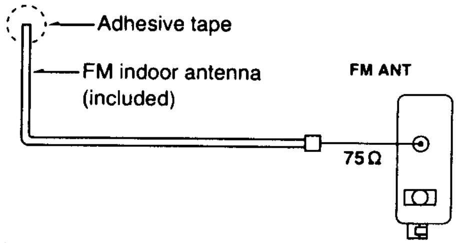
After connection, fold and press the cable as flat to the back of the unit as possible.


Heat prevention cover

Do not try connecting or disconnecting the flat cable while the power is switched to ON.

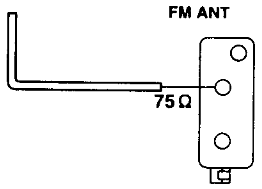
2 Connect the FM indoor antenna.

Install the antenna on a wall at a height and in a direction which result in the best reception.


Adhesive tape
FM indoor antenna (included)
FM ANT
75 Ω

The tip of the internal antenna wire should not come into contact with any metal objects.
When you cannot get a good reception with this FM indoor antenna, we recommend you install an FM outdoor antenna (not included). Disconnect the FM indoor antenna if you install an FM outdoor antenna.

For areas except Europe



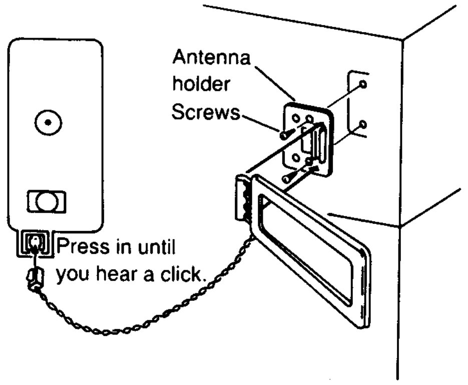
3 Connect the LW/MW loop antenna.

1. Attach the antenna holder with screws (included) to the rear panel of the sound processor.
2. Clamp the antenna to the antenna holder and connect the antenna terminal to the rear panel of the tuner amplifier.
3. Position the loop for the best reception.

You may attach the LW/MW antenna holder to a rack or other structure.

Notes:

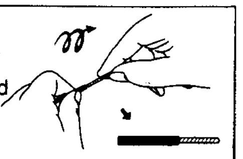
- To minimize noise pickup, keep the LW/MW loop antenna away from the speaker cable, power cord, and metal surfaces.
- For better reception, keep the LW/MW loop antenna cord along the heat prevention cover, and away from the flat cable.


Antenna holder
Screws
Press in until you hear a click.

4 Connect the speaker cables.

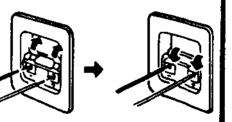
Note:
Be sure to connect speaker cables before connecting the AC power supply cord.

Connection of speaker cables

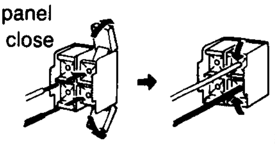


1. Strip off the outer covering, and twist the center conductor.

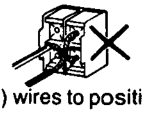
Make sure the bare ends of the wires are not unraveled. (If they are, twist them tight again.)



2. Insert the wire to the rear panel of the speakers, and then pull down the lever.



3. Insert the wire to the rear panel of the tuner amplifier, and close the lever.



Notes:

- To prevent damage to circuitry, never short-circuit positive (+) and negative (−) speaker wires.
- Be sure to connect only positive (red) wires to positive (+) terminals and negative (black) wires to negative (−) terminals.

Notes:

•S601	: Power "STANDBY ⏻/ON" switch (POWER/STANDBY ⏻/ON)
•S602	: Timer recording switch (REC TIMER)
•S603	: Timer play switch (PLAY TIMER)
•S604	: Clock/timer switch (CLOCK/TIMER)
•S605	: Timer select switch (▼)
•S606	: Timer select switch (▲)
•S607	: Setting switch (SET)
•S608	: Preset memory switch (MEMORY, -MANUAL, –AUTO)
•S609	: Preset tuning switch (▼)
•S610	: Preset tuning switch (▲)
•S611	: Band select/allocation charge switch (-BAND –ALLOCATION)
•S612	: Tuning switch (▼)
•S613	: Tuning switch (▲)
•S614	: FM mode switch (FM MODE)
•S615	: Balance adjustment switch (BALANCE L)
•S616	: Balance adjustment switch (BALANCE R)
•S617	: Input select switch (PHONO)
•S618	: Input select switch (TAPE)
•S619	: Input select switch (CD)
•S620	: Input select switch (TUNER)
•S621	: Input select switch (DAT)
•S701	: VOLTAGE SELECTOR switch in "220 V" position (110 V/127 V/220 V/240 V) for (GC) area only

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
  No mark: FM mode ( ): MW mode < >: LW mode

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- **Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the word table.
  Do not touch the legs of IC or LSI with the fingers directly.

- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC202 IC203 IC351	BA4558FT1	SVIBA4558F
IC301	M5218AL	M5218L
IC602	RCDHC-278-E	RCDHC-278

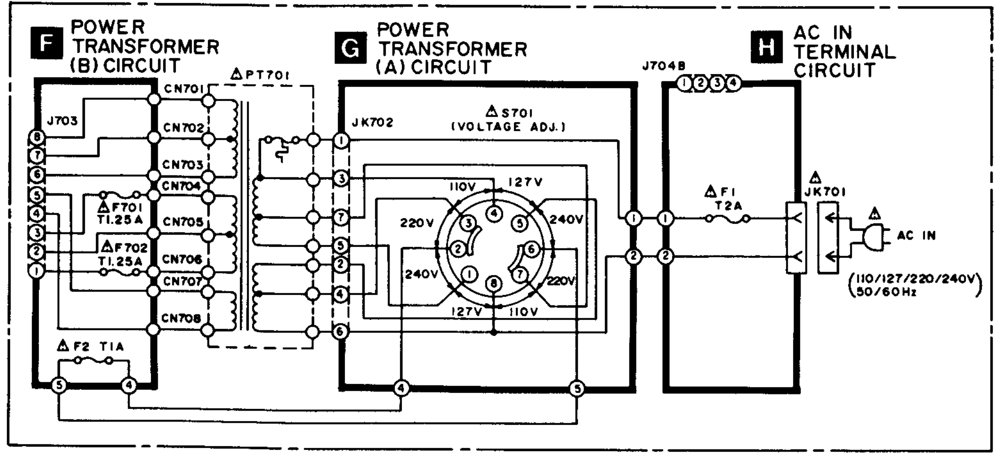
━━━ : **Positive voltage line**

– – – – : **Negative voltage line**

▨ : **AF signal line**

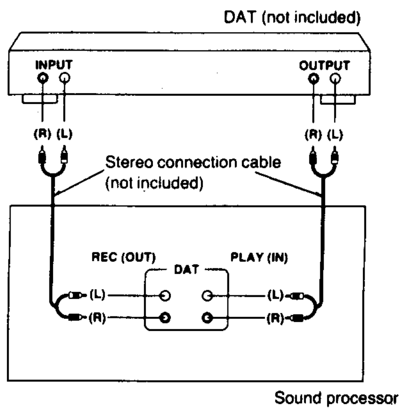
- **This schematic diagram may be modified at any time with the development of new technology.**

Power Source For (GC) area.

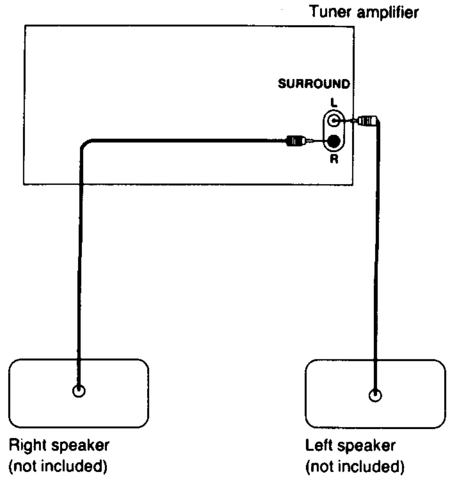

F
POWER TRANSFORMER (B) CIRCUIT
G
POWER TRANSFORMER (A) CIRCUIT
H
AC IN TERMINAL CIRCUIT
⚠PT701
J703
CN701
CN702
CN703
CN704
CN705
CN706
CN707
CN708
⚠F701 T1.25A
⚠F702 T1.25A
⚠F2 T1A
JK702
⚠S701 (VOLTAGE ADJ.)
110V
127V
220V
240V
J704B
⚠F1 T2A
⚠JK701
AC IN
(110/127/220/240V 50/60Hz)

•External unit connection

DAT (digital audio tape deck)

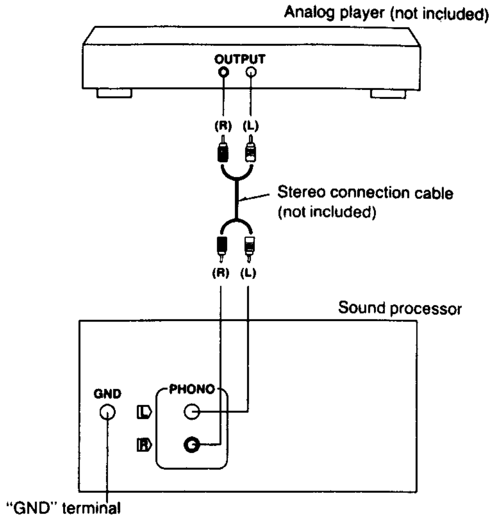

DAT (not included)
INPUT
OUTPUT
(R) (L)
(R) (L)
Stereo connection cable (not included)
REC (OUT)
DAT
PLAY (IN)
(L)
(R)
(L)
(R)
Sound processor

Surround speakers


Tuner amplifier
SURROUND
L
R
Right speaker (not included)
Left speaker (not included)

Notes:
- Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.
- Install each speaker left and right at the back of the listening space.

Analog player

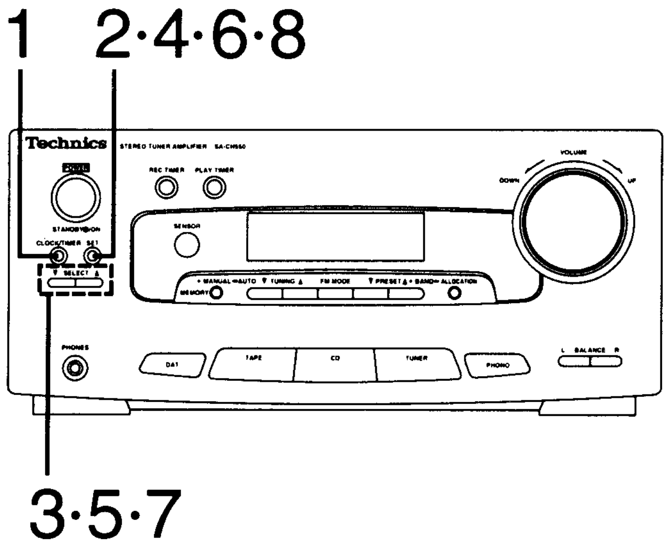

Analog player (not included)
OUTPUT
(R) (L)
Stereo connection cable (not included)
(R) (L)
Sound processor
GND
PHONO
L
R

"GND" terminal
This terminal is for a ground wire use.

Note:
For the set with "AUX" terminal instead of "PHONO"; Use an analog player which has built-in phono equalizer.

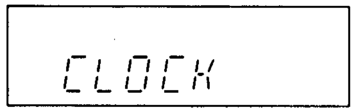
■ SETTING THE TIME OF DAY

These instructions explain how to set the time for 16:25 (4:25 p.m.) on Wednesday.

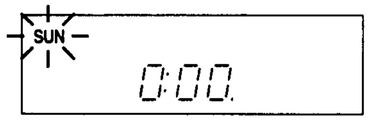

1
2·4·6·8
3·5·7
Technics

Switch on the power.

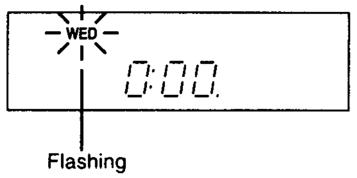
1 **Press CLOCK/TIMER to select "CLOCK".**
The display will show CLOCK.
The display will return to what was previously indicated if you allow 7 or more seconds to elapse before you accomplish the next operation.



2 **Press SET.**
The day indicator will start to flash.

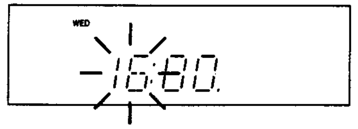


3 **Press one of the SELECT buttons to select "WED".**


WED
0:00.
Flashing

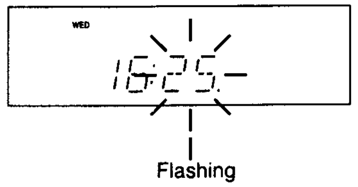
4 **Press SET.**

5 **Press one of the SELECT buttons to select "16".**
Going from 23:59 to 00:00 on the hour display will not change the day display.



6 **Press SET.**

7 **Press one of the SELECT buttons to select "25".**
Going from 59 to 00 on the minute display will not change the hour display.


WED
16:25.
Flashing

8 **Press SET to finish setting the time.**
After about 2 seconds, the display will return to what it were before entering the clock setting mode.

To display the clock again, press CLOCK/TIMER. The display will show "CLOCK", and then clock will appear for 5 seconds.

"E" appears on the display if the power cord has been once disconnected or there has been a power failure. If this happens, reset the time.

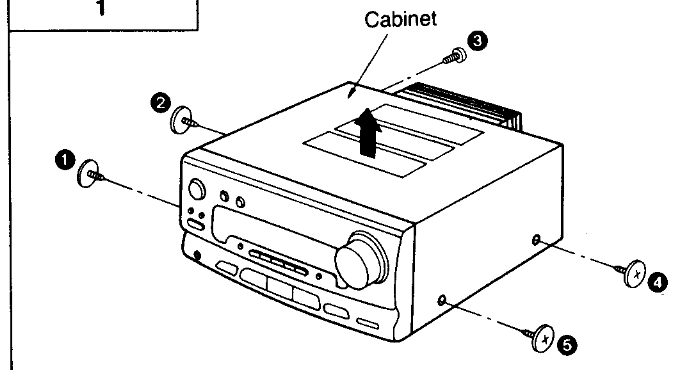
■ DISASSEMBLY INSTRUCTIONS

"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1

Removal of the Cabinet

Procedure 1

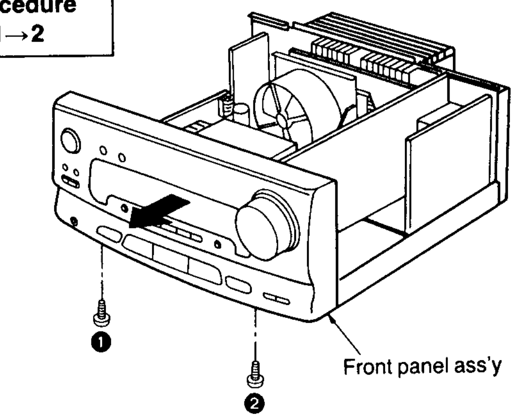

Cabinet
❸
❷
❶
❹
❺

1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2

Removal of the Front Panel Ass'y

Procedure 1→2

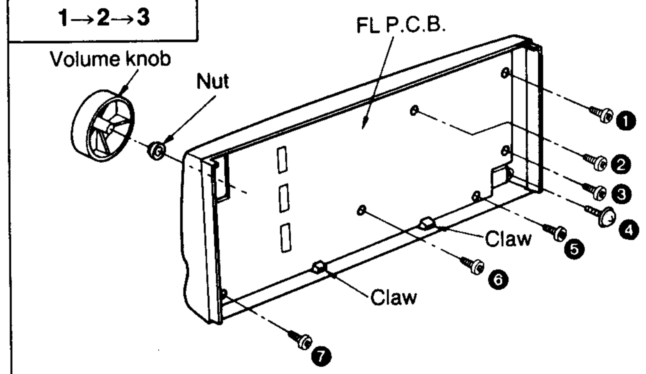

❶
❷
Front panel ass'y

1. Remove the 2 screws (❶, ❷).
2. Remove the front panel ass'y in the direction of arrow.

Ref. No. 3

Removal of the FL P.C.B.

Procedure 1→2→3

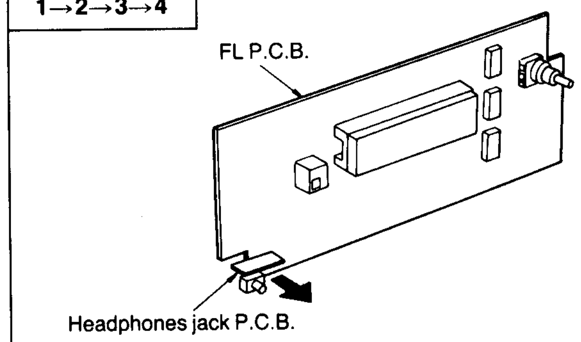

Volume knob
Nut
FL P.C.B.
❶
❷
❸
❹
❺
❻
❼
Claw
Claw

1. Pull out the volume knob.
2. Remove the nut.
3. Remove the 7 screws (❶~❼).
4. Release the 2 claws.

Ref. No. 4

Removal of the Headphones Jack P.C.B.

Procedure 1→2→3→4

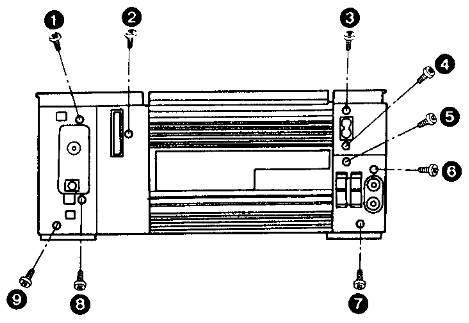

FL P.C.B.
Headphones jack P.C.B.

- Remove the headphones jack P.C.B. in the direction of arrow.

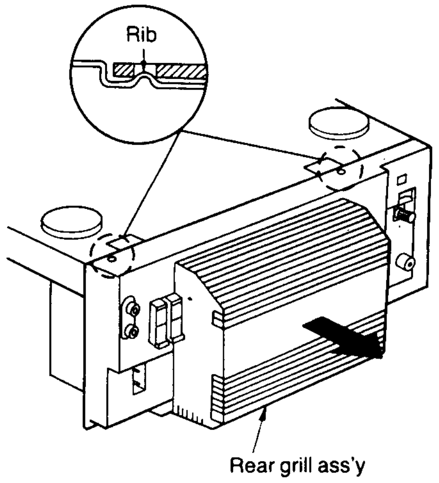
Ref. No. 5

Removal of the Rear Grill Ass'y

Procedure 1→5



1. Remove the 9 screws (❶~❾).

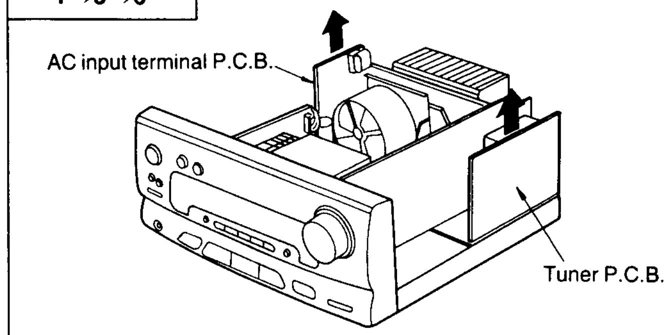

Rib
Rear grill ass'y

2. Remove the 2 ribs.
3. Remove the rear grill ass'y in the direction of arrow.

Ref. No. 6

Removal of the AC Input Terminal P.C.B. and Tuner P.C.B.

Procedure 1→5→6


AC input terminal P.C.B.
Tuner P.C.B.

■ Removal of the AC Input Terminal P.C.B.

- Remove the AC input terminal P.C.B. in the direction of arrow.

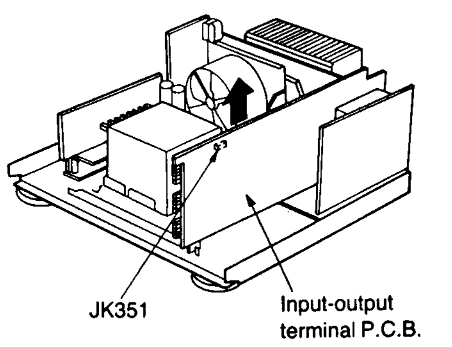
■ Removal of the tuner P.C.B.

- Remove the tuner P.C.B. in the direction of arrow.

Ref. No. 7

Removal of the Input-output Terminal P.C.B.

Procedure 1→2→5→7

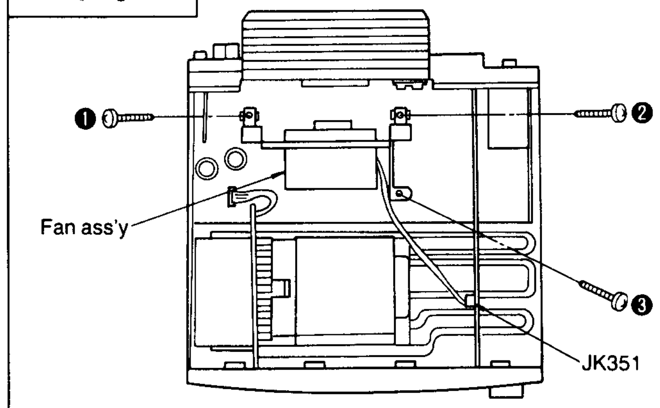

JK351
Input-output terminal P.C.B.

1. Remove the 1 connector (JK351).
2. Remove the input-output terminal P.C.B. in the direction of arrow.

Ref. No. 8

Removal of the Fan Ass'y

Procedure 1→8

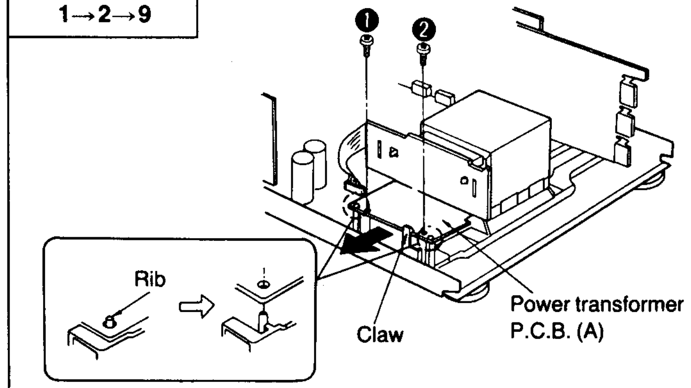

❶
❷
❸
Fan ass'y
JK351

1. Remove the 1 connector (JK351).
2. Remove the 3 screws (❶~❸).

Ref. No. 9

Removal of the Power Transformer P.C.B. (A)

Procedure 1→2→9

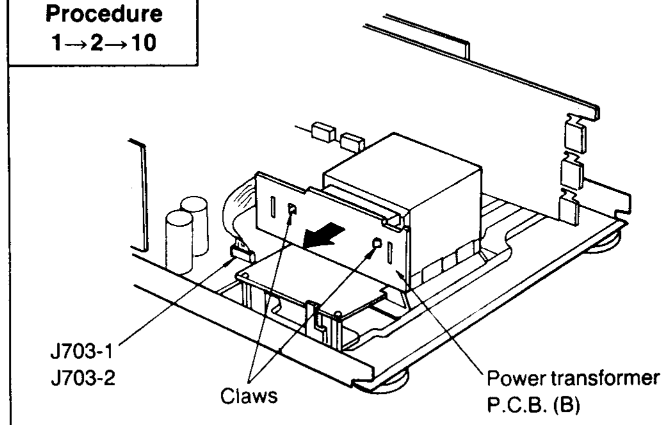

❶
❷
Rib
Claw
Power transformer P.C.B. (A)

1. Remove the 2 screws (❶, ❷).
2. Release the 1 claw.
3. Remove the 2 rib.
4. Remove the power transformer P.C.B. (A) in the direction of arrow.

Ref. No. 10

Removal of the Power Transformer P.C.B. (B)

Procedure 1→2→10

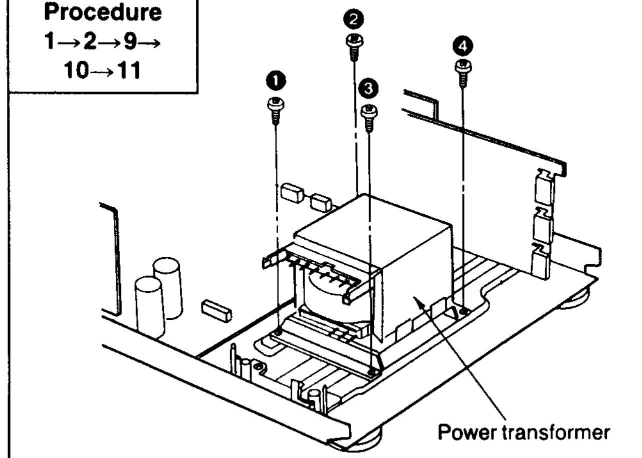

J703-1
J703-2
Claws
Power transformer P.C.B. (B)

1. Remove the 1 flat cable (J703-1, J703-2).
2. Release the 2 claws.
3. Remove the power transformer P.C.B. (B) in the direction of arrow.

Ref. No. 11

Removal of the Power Transformer

Procedure 1→2→9→10→11


❶
❷
❸
❹
Power transformer

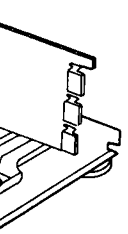
- Remove the 4 screws (❶~❹).

t Terminal

3.

ion of

sformer



er transformer
B. (A)

ction of

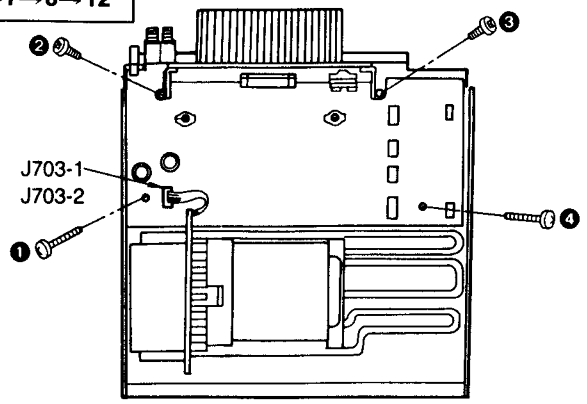
sformer

ormer

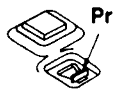
Ref. No. 12

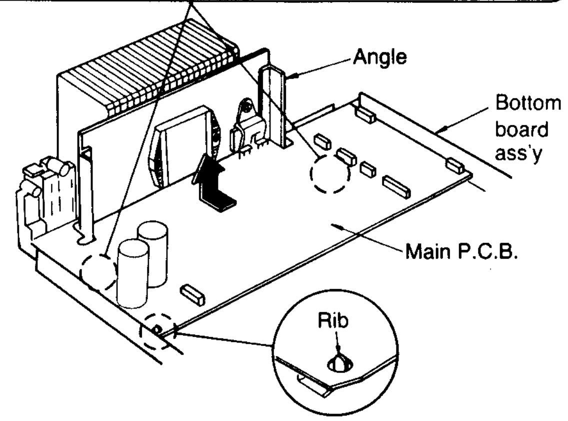
Removal of the main P.C.B.

Procedure
1→2→5→6→7→8→12


❷
❸
J703-1
J703-2
❶
❹

■ **NOTE**
•Insert the projection on the angle into the hole of the bottom board ass'y and then install the Main P.C.B.


[Bottom view]
Projection

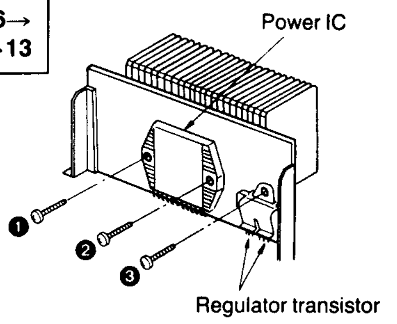

Angle
Bottom board ass'y
Main P.C.B.
Rib

1. Remove the 4 screws (❶~❹).
2. Remove the 1 flat cable (J703-1, J703-2).
3. Remove the rib.
4. Remove the main P.C.B. in the direction of arrow.

Ref. No. 13

Removal of the Power IC and Regulator Transistor

Procedure
1→2→5→6→7→8→12→13


Power IC
❶
❷
❸
Regulator transistor

1. Unsolder the power IC or regulator transistors.
2. Remove the 3 screws (❶~❸).

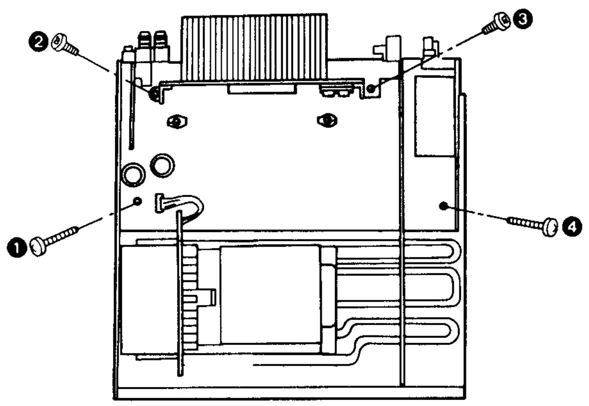
•When mounting the power IC or regulator transistor, apply silicone compound (RFKX0002) to the rear side of power IC or regulator transistors.

Ref. No. 14

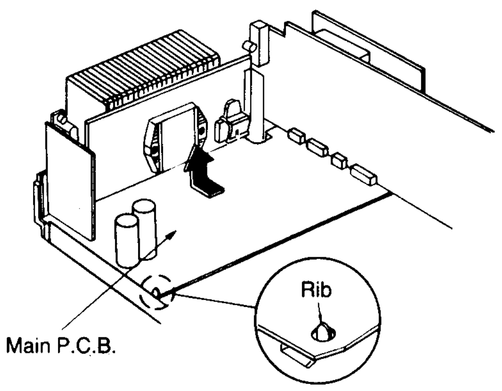
How to check the Main P.C.B.

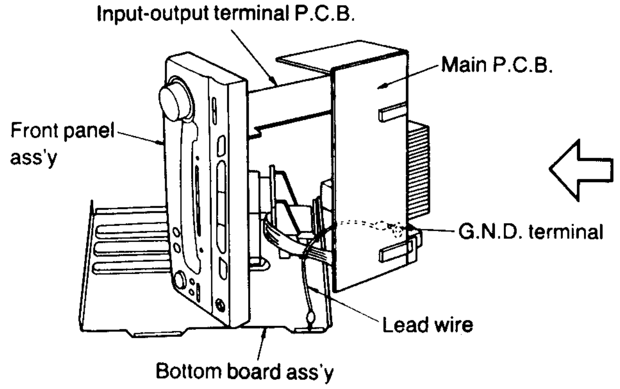
Procedure
1→2→5→8→14

•When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.



1. Remove the 4 screws (❶~❹).


Main P.C.B.
Rib


Input-output terminal P.C.B.
Main P.C.B.
Front panel ass'y
G.N.D. terminal
Lead wire
Bottom board ass'y

2. Remove the rib.
3. Remove the main P.C.B. in the direction of arrow.
4. Connect the G.N.D. terminal to the bottom board ass'y by the lead wire.
5. Reinstall the front panel ass'y to the input-output terminal P.C.B.

Ref. No. 15

Removal of the Fan Ass'y

Procedure
1→8→15

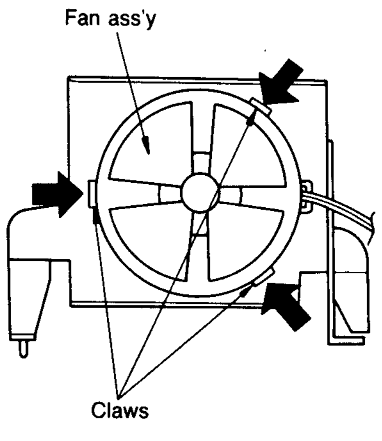

Fan ass'y
Claws

Fig. 1

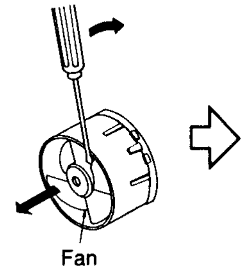


Fig. 2

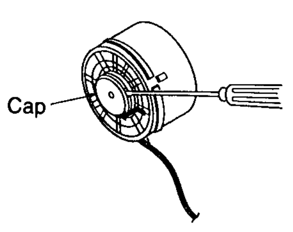


Fig. 3

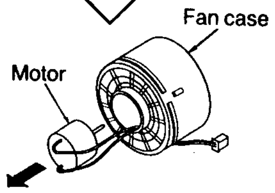

Fan case
Motor

Fig. 4

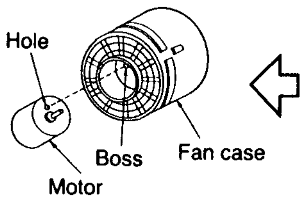
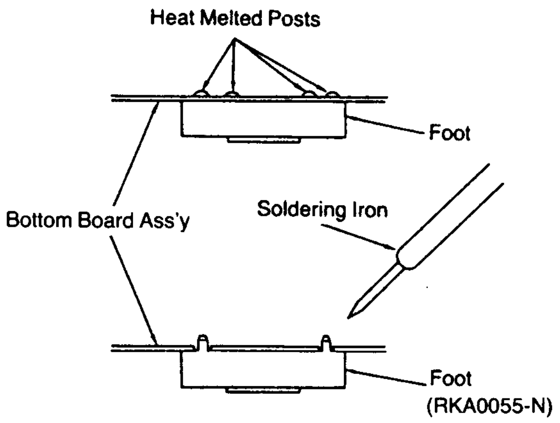

Hole
Boss
Fan case
Motor

Fig. 5

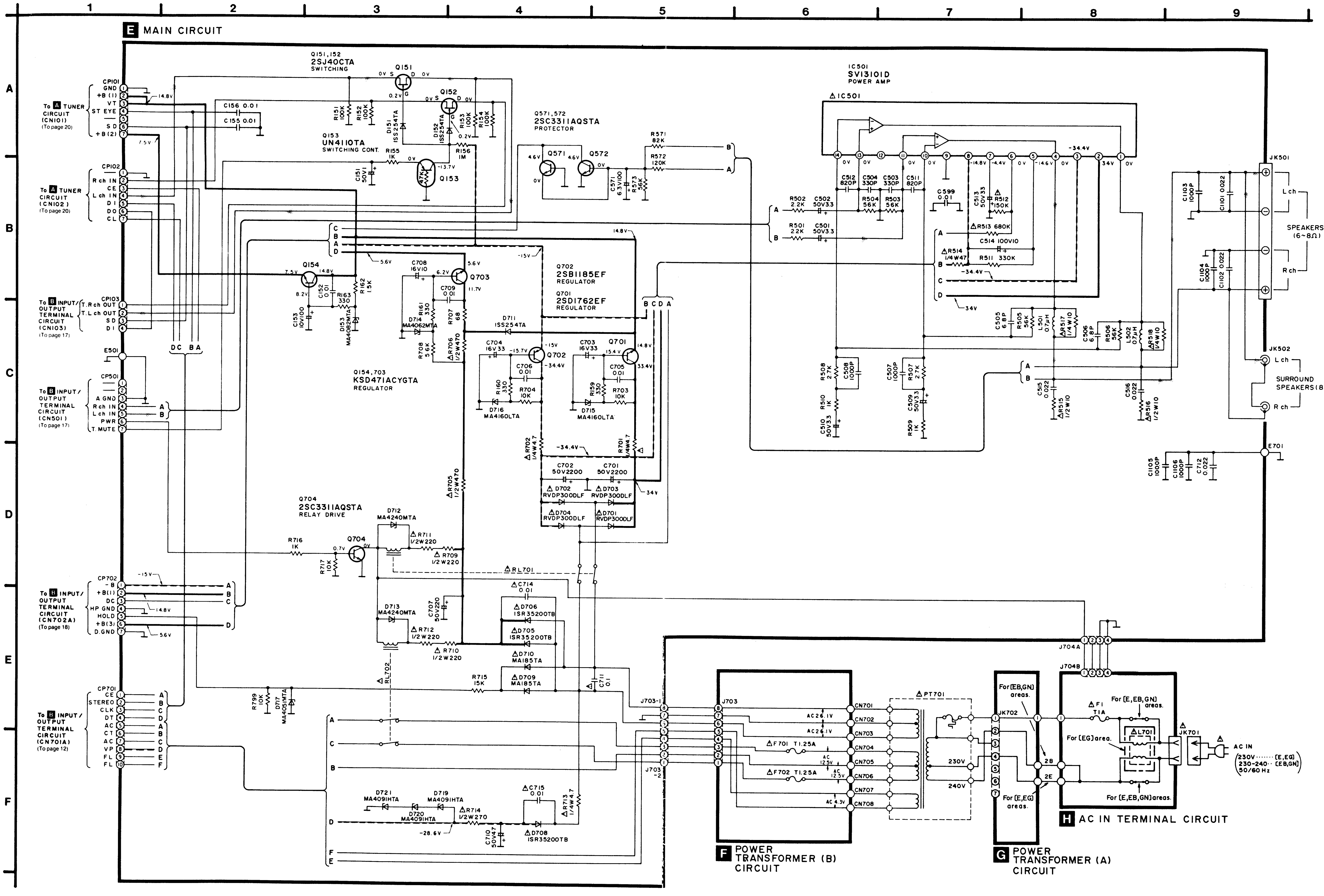
1. Release the 3 claws (shown in Fig. 1).
2. Insert a screwdriver at the root of the fan (shown in Fig. 2).
3. Remove the cap (shown in Fig. 3).
4. Remove the motor from the fan case (shown in Fig. 4).
5. When mounting the motor, align the fan case projection with the hole of the motor (shown in Fig. 5).

•Replacement of the Foot.

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat Melted Posts
Foot
Bottom Board Ass'y
Soldering Iron
Foot (RKA0055-N)

■ SCHEMATIC DIAGRAM •MAIN, POWER TRANSFORMER AND AC INPUT CIRCUIT (Parts list on pages 32~35.)


E MAIN CIRCUIT
To A TUNER CIRCUIT (CN101) (To page 20)
CP101 GND +B(1) VT ST EYE SD +B(2)
To A TUNER CIRCUIT (CN102) (To page 20)
CP102 Rch IN CE Lch IN DI DO CL
To B INPUT/OUTPUT TERMINAL CIRCUIT (CN103) (To page 17)
CP103 T.Rch OUT T.Lch OUT SD DI
E501
To B INPUT/OUTPUT TERMINAL CIRCUIT (CN501) (To page 17)
CP501 A GND Rch IN Lch IN PWR T.MUTE
To B INPUT/OUTPUT TERMINAL CIRCUIT (CN702A) (To page 18)
CP702 -B +B(1) DC HP GND HOLD +B(3) D.GND
To B INPUT/OUTPUT TERMINAL CIRCUIT (CN701A) (To page 12)
CP701 CE STEREO CLK DT AC CT AC VP FL FL
Q151,152 2SJ40CTA SWITCHING
Q153 UN4110TA SWITCHING CONT.
Q571,572 2SC3311AQSTA PROTECTOR
IC501 SVI3101D POWER AMP
Q154,703 KSD471ACYGTA REGULATOR
Q702 2SB1185EF REGULATOR
Q701 2SD1762EF REGULATOR
Q704 2SC3311AQSTA RELAY DRIVE
JK501 Lch Rch SPEAKERS (6~8Ω)
JK502 Lch Rch SURROUND SPEAKERS (8Ω)
E701
ΔRL701
J703 J703-1 J703-2
ΔF701 T1.25A
ΔF702 T1.25A
ΔPT701
230V 240V
J704A J704B
JK702
ΔF1 T1A
ΔL701
ΔJK701
AC IN 230V······(E,EG) 230-240··(EB,GN) 50/60 Hz
For (EB,GN) areas.
For (E,EB,GN) areas.
For (EG) area.
For (E,EG) areas.
F POWER TRANSFORMER (B) CIRCUIT
G POWER TRANSFORMER (A) CIRCUIT
H AC IN TERMINAL CIRCUIT

Notes:

- •S601 : Pow
- •S602 : Tim
- •S603 : Tim
- •S604 : Cloc
- •S605 : Tim
- •S606 : Tim
- •S607 : Sett
- •S608 : Pres
- •S609 : Pres
- •S610 : Pres
- •S611 : Ban
- •S612 : Tuni
- •S613 : Tuni
- •S614 : FM
- •S615 : Bala
- •S616 : Bala
- •S617 : Inpu
- •S618 : Inpu
- •S619 : Inpu
- •S620 : Inpu
- •S621 : Inpu
- •S701 : VOL

•Indicated voltage v
chassis taken as s
Therefore, there m
No mark: FM mod

•Important safety no
Components ident
Furthermore, spec
are used. When re

•Caution!
IC and LSI are sen
Secondary trouble
Cover the parts bo
Ground the solderi
Put a conductive m
Do not touch the le

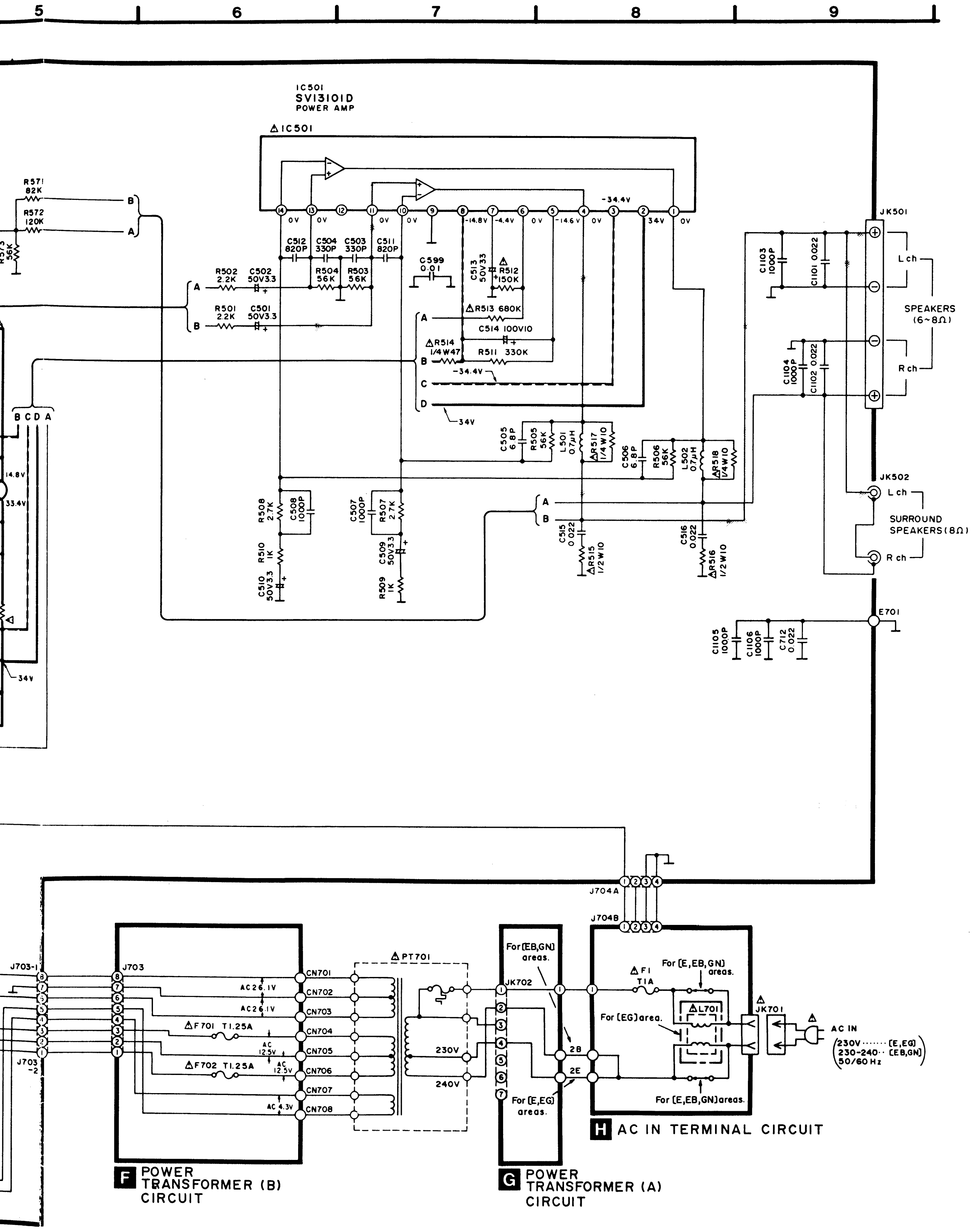
•The supply part nu

Ref. No.	
IC202 IC203 IC351	
IC301	
IC602	

•This schematic di

P

CUIT (Parts list on pages 32~35.)


5
6
7
8
9
IC501
SVI3101D
POWER AMP
ΔIC501
R571 82K
R572 120K
R502 2.2K
C502 50V3.3
R501 2.2K
C501 50V3.3
C512 820P
C504 330P
C503 330P
C511 820P
R504 56K
R503 56K
C599 0.01
C513 50V33
ΔR512 150K
ΔR513 680K
C514 100V10
ΔR514 1/4W47
R511 330K
-34.4V
34V
-14.8V
-4.4V
-14.6V
0V
C505 6.8P
R505 56K
L501 0.7μH
ΔR517 1/4W10
C506 6.8P
R506 56K
L502 0.7μH
ΔR518 1/4W10
R508 2.7K
C508 1000P
R510 1K
C510 50V33
C507 1000P
R507 2.7K
C509 50V33
R509 1K
C515 0.022
ΔR515 1/2W10
C516 0.022
ΔR516 1/2W10
C1103 1000P
C1101 0.022
C1104 1000P
C1102 0.022
JK501
L ch
SPEAKERS (6~8Ω)
R ch
JK502
L ch
SURROUND SPEAKERS (8Ω)
R ch
E701
C1105 1000P
C1106 1000P
C712 0.022
14.8V
33.4V
34V
J704A
J704B
J703
J703-1
J703-2
AC 26.1V
AC 26.1V
ΔF701 T1.25A
AC 12.5V
ΔF702 T1.25A
AC 12.5V
AC 4.3V
CN701
CN702
CN703
CN704
CN705
CN706
CN707
CN708
ΔPT701
230V
240V
For (EB,GN) areas.
JK702
For (E,EG) areas.
ΔF1 T1A
For (E,EB,GN) areas.
For (EG) area.
ΔL701
ΔJK701
AC IN
(230V······(E,EG)
230-240··(EB,GN)
50/60Hz)
For (E,EB,GN) areas.
H AC IN TERMINAL CIRCUIT
F POWER TRANSFORMER (B) CIRCUIT
G POWER TRANSFORMER (A) CIRCUIT

Notes:

- S601 : Power "STANDBY ⏻/ON" switch (POWER/STANDBY ⏻/ON)
- S602 : Timer recording switch (REC TIMER)
- S603 : Timer play switch (PLAY TIMER)
- S604 : Clock/timer switch (CLOCK/TIMER)
- S605 : Timer select switch (▼)
- S606 : Timer select switch (▲)
- S607 : Setting switch (SET)
- S608 : Preset memory switch (MEMORY, -MANUAL, –AUTO)
- S609 : Preset tuning switch (▼)
- S610 : Preset tuning switch (▲)
- S611 : Band select/allocation charge switch (-BAND –ALLOCATION)
- S612 : Tuning switch (▼)
- S613 : Tuning switch (▲)
- S614 : FM mode switch (FM MODE)
- S615 : Balance adjustment switch (BALANCE L)
- S616 : Balance adjustment switch (BALANCE R)
- S617 : Input select switch (PHONO)
- S618 : Input select switch (TAPE)
- S619 : Input select switch (CD)
- S620 : Input select switch (TUNER)
- S621 : Input select switch (DAT)
- S701 : VOLTAGE SELECTOR switch in "220 V" position (110 V/127 V/220 V/240 V) for (GC) area only
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
  No mark: FM mode ( ): MW mode < >: LW mode

- Important safety notice:
  Components identified by Δ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- **Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the word table.
  Do not touch the legs of IC or LSI with the fingers directly.

- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Parts No.	Supply Parts No.
IC202 IC203 IC351	BA4558FT1	SVIBA4558F
IC301	M5218AL	M5218L
IC602	RCDHC-278-E	RCDHC-278

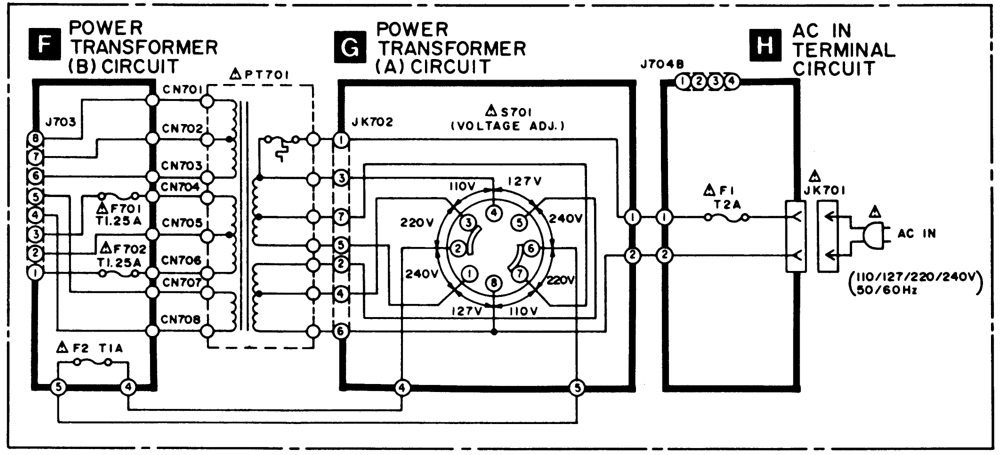
——— : Positive voltage line

- - - - : Negative voltage line

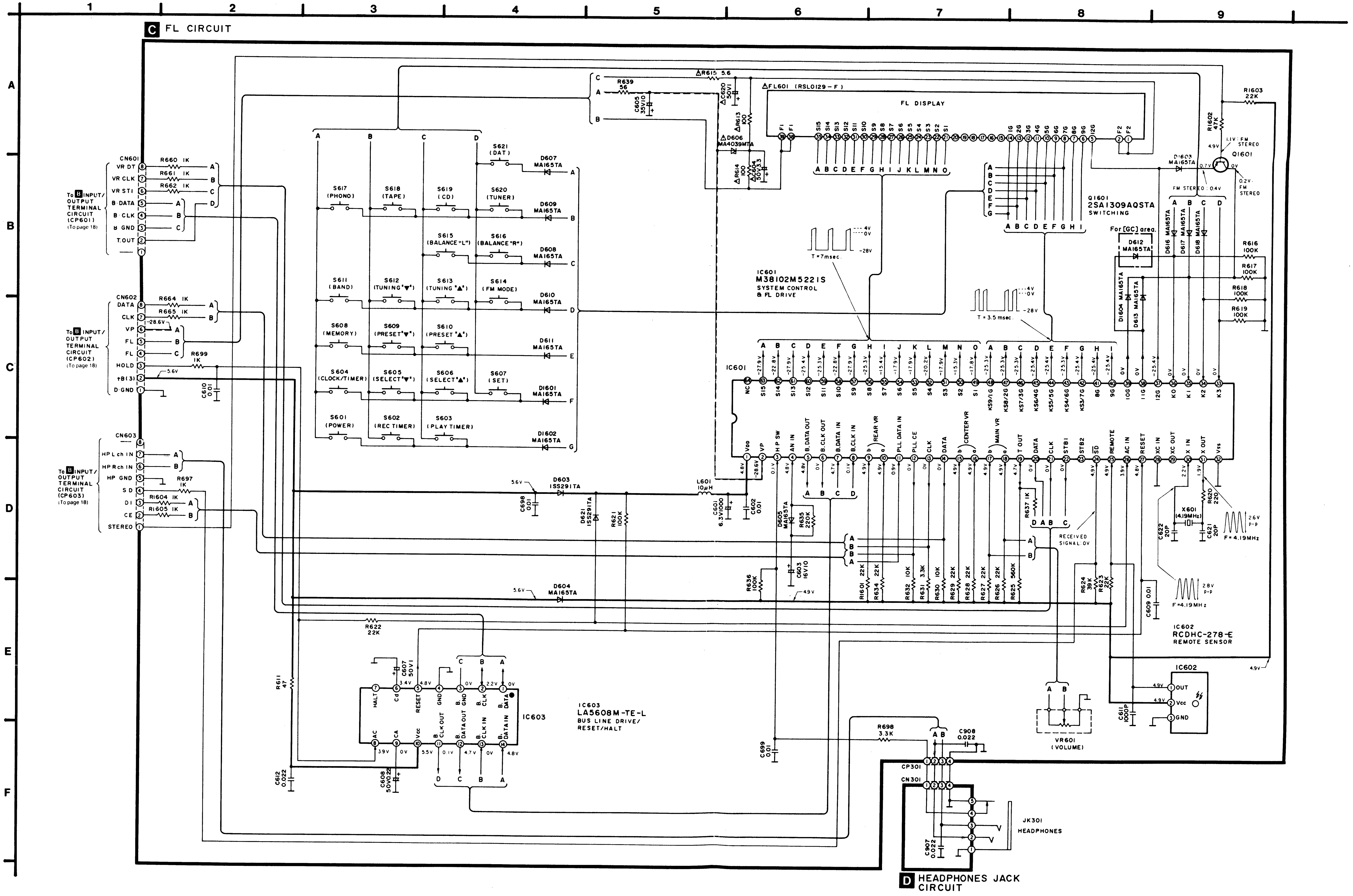
▨ : AF signal line

- **This schematic diagram may be modified at any time with the development of new technology.**

Power Source For (GC) area.

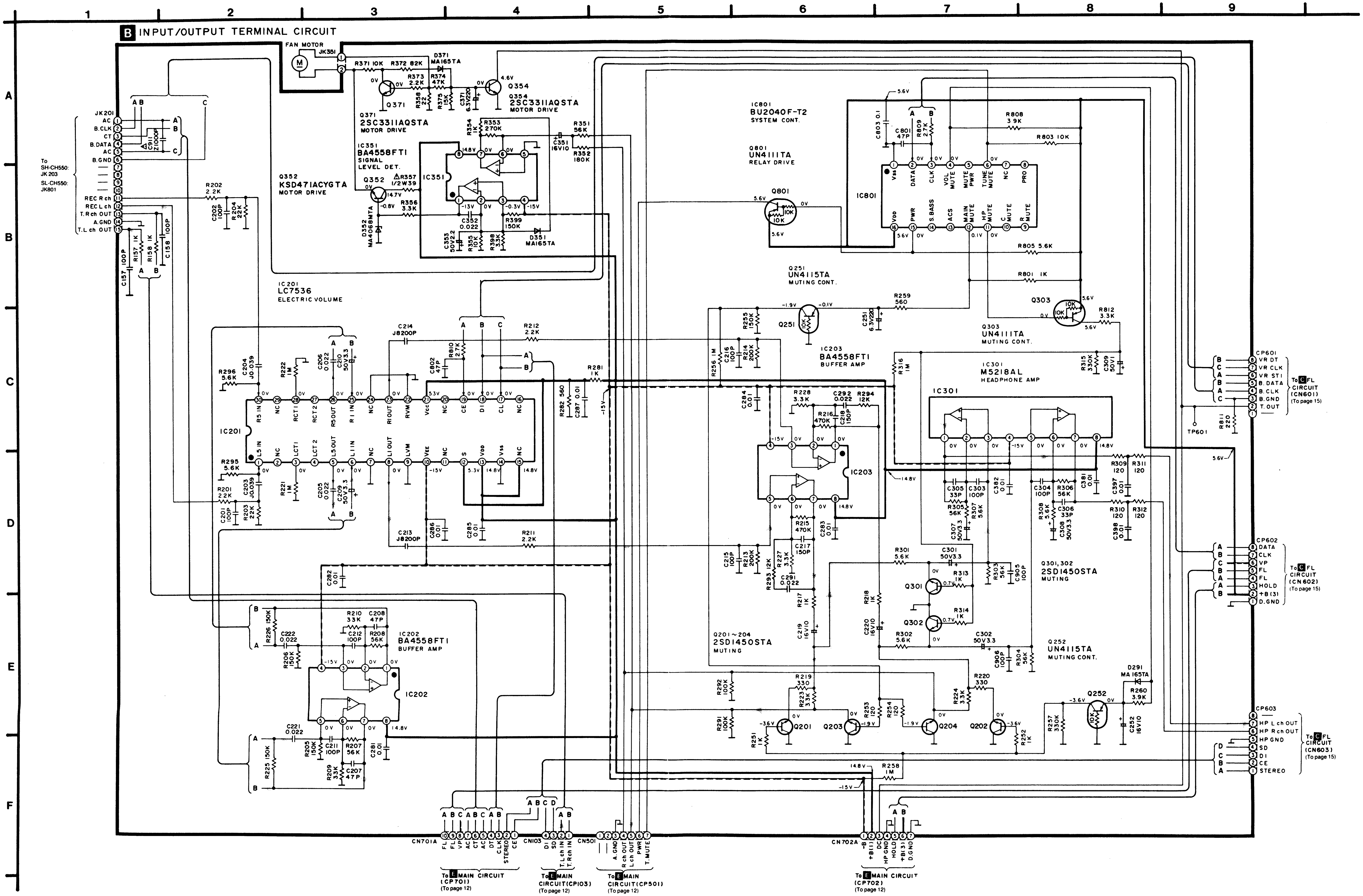

F POWER TRANSFORMER (B) CIRCUIT
G POWER TRANSFORMER (A) CIRCUIT
H AC IN TERMINAL CIRCUIT
ΔPT701
J703
CN701
CN702
CN703
CN704
CN705
CN706
CN707
CN708
ΔF701 T1.25A
ΔF702 T1.25A
ΔF2 T1A
JK702
ΔS701 (VOLTAGE ADJ.)
110V
127V
220V
240V
J704B
ΔF1 T2A
ΔJK701
AC IN
(110/127/220/240V 50/60Hz)

■ SCHEMATIC DIAGRAM •FL AND HEADPHONES CIRCUIT (Parts list on pages 32~35.)


1 2 3 4 5 6 7 8 9
A B C D E F
C FL CIRCUIT
D HEADPHONES JACK CIRCUIT
CN601
VR DT
VR CLK
VR STI
B·DATA
B·CLK
B·GND
T.OUT
To B INPUT/OUTPUT TERMINAL CIRCUIT (CP601) (To page 18)
R660 1K
R661 1K
R662 1K
CN602
DATA
CLK
VP
FL
HOLD
+B(3)
D·GND
-28.6V
R664 1K
R665 1K
R699 1K
To B INPUT/OUTPUT TERMINAL CIRCUIT (CP602) (To page 18)
C610 0.01
CN603
HP L ch IN
HP R ch IN
HP GND
SD
DI
CE
STEREO
R697 1K
R1604 1K
R1605 1K
To B INPUT/OUTPUT TERMINAL CIRCUIT (CP603) (To page 18)
S621 (DAT)
S617 (PHONO)
S618 (TAPE)
S619 (CD)
S620 (TUNER)
S615 (BALANCE "L")
S616 (BALANCE "R")
S611 (BAND)
S612 (TUNING "▼")
S613 (TUNING "▲")
S614 (FM MODE)
S608 (MEMORY)
S609 (PRESET "▼")
S610 (PRESET "▲")
S604 (CLOCK/TIMER)
S605 (SELECT "▼")
S606 (SELECT "▲")
S607 (SET)
S601 (POWER)
S602 (REC TIMER)
S603 (PLAY TIMER)
D607 MA165TA
D609 MA165TA
D608 MA165TA
D610 MA165TA
D611 MA165TA
D1601 MA165TA
D1602 MA165TA
R639 56
C605 35V10
R615 5.6
C620 50V1
R613 100
D606 MA4039MTA
R614 100
C604 50V3.3
FL601 (RSL0129-F)
FL DISPLAY
F1 F1 S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 1G 2G 3G 4G 5G 6G 7G 8G 9G 12G F2 F2
A B C D E F G H I J K L M N O
A B C D E F G H I
R1602 47K
R1603 22K
1.1V: FM STEREO
4.9V
Q1601
D1603 MA165TA
0.7V
0V
0.2V: FM STEREO
FM STEREO: 0.4V
Q1601 2SA1309AQSTA SWITCHING
For [GC] area.
D612 MA165TA
D616 MA165TA
D617 MA165TA
D618 MA165TA
D604 MA165TA
D613 MA165TA
R616 100K
R617 100K
R618 100K
R619 100K
-4V
0V
-28V
T=7msec.
T=3.5msec.
IC601 M38102M5221S SYSTEM CONTROL & FL DRIVE
IC601
NC S15 S14 S13 S12 S11 S10 S9 S8 S7 S6 S5 S4 S3 S2 S1 KS9/1G KS8/2G KS7/3G KS6/4G KS5/5G KS4/6G KS3/7G 8G 9G 10G 11G 12G K0 K1 K2 K3
VDD VP HP SW AN IN B.DATA OUT B.CLK OUT B.DATA IN B.CLK IN REAR VR PLL DATA IN PLL CE CLK DATA CENTER VR MAIN VR T OUT DATA CLK STB1 STB2 SD REMOTE AC IN RESET XC IN XC OUT X IN X OUT Vss
-27.9V -22.8V -27.9V -25.4V -25.3V -22.8V -27.9V -25.3V -15.4V -17.9V -17.9V -20.2V -17.9V -15.3V -17.8V -25.3V -25.3V -25.3V -25.4V -25.4V -25.3V -25.4V -25.4V -25.4V
4.8V -28.6V 0.1V 4.8V 4.8V 0V 4.7V 0.1V 4.9V 4.9V 0.9V 0V 0V 4.9V 4.9V 4.9V 4.9V 4.7V 0V 0V 0V 4.9V 4.9V 3.9V 4.8V 2.2V 1.9V
D603 1SS291TA
5.6V
C698 0.01
D621 1SS291TA
R621 100K
L601 10μH
C601 6.3V1000
C602 0.01
D605 MA165TA
R635 220K
C603 16V10
R636 100K
-4.9V
R637 1K
RECEIVED SIGNAL: 0V
R1601 22K
R634 22K
R632 10K
R631 3.3K
R630 10K
R629 22K
R628 22K
R627 22K
R626 22K
R625 560K
R624 39K
R623 22K
C609 0.01
X601 (4.19MHz)
R620 220
C622 20P
C621 20P
2.6V p-p
F=4.19MHz
2.8V p-p
F=4.19MHz
IC602 RCDHC-278-E REMOTE SENSOR
D604 MA165TA
R622 22K
R611 47
C607 50V1
IC603
HALT Cd RESET GND B.GND B.CLK B.DATA
AC CA Vcc B.CLK OUT B.DATA OUT B.CLK IN B.DATA IN
3.4V 4.8V 0V 2.2V 0V
3.9V 0V 5.5V 0.1V 4.7V 0V 4.8V
IC603 LA5608M-TE-L BUS LINE DRIVE/RESET/HALT
C612 0.022
C608 50V0.22
C699 0.01
R698 3.3K
C908 0.022
CP301
CN301
VR601 (VOLUME)
IC602
OUT Vcc GND
4.9V
C611 1000P
JK301 HEADPHONES
C907 0.022

■ SCHEMATIC DIAGRAM •INPUT-OUTPUT TERMINAL CIRCUIT (Parts list on pages 32~35.)

▨ : AF signal line — : Positive voltage line ■ ■ ■ ■ : Negative voltage line

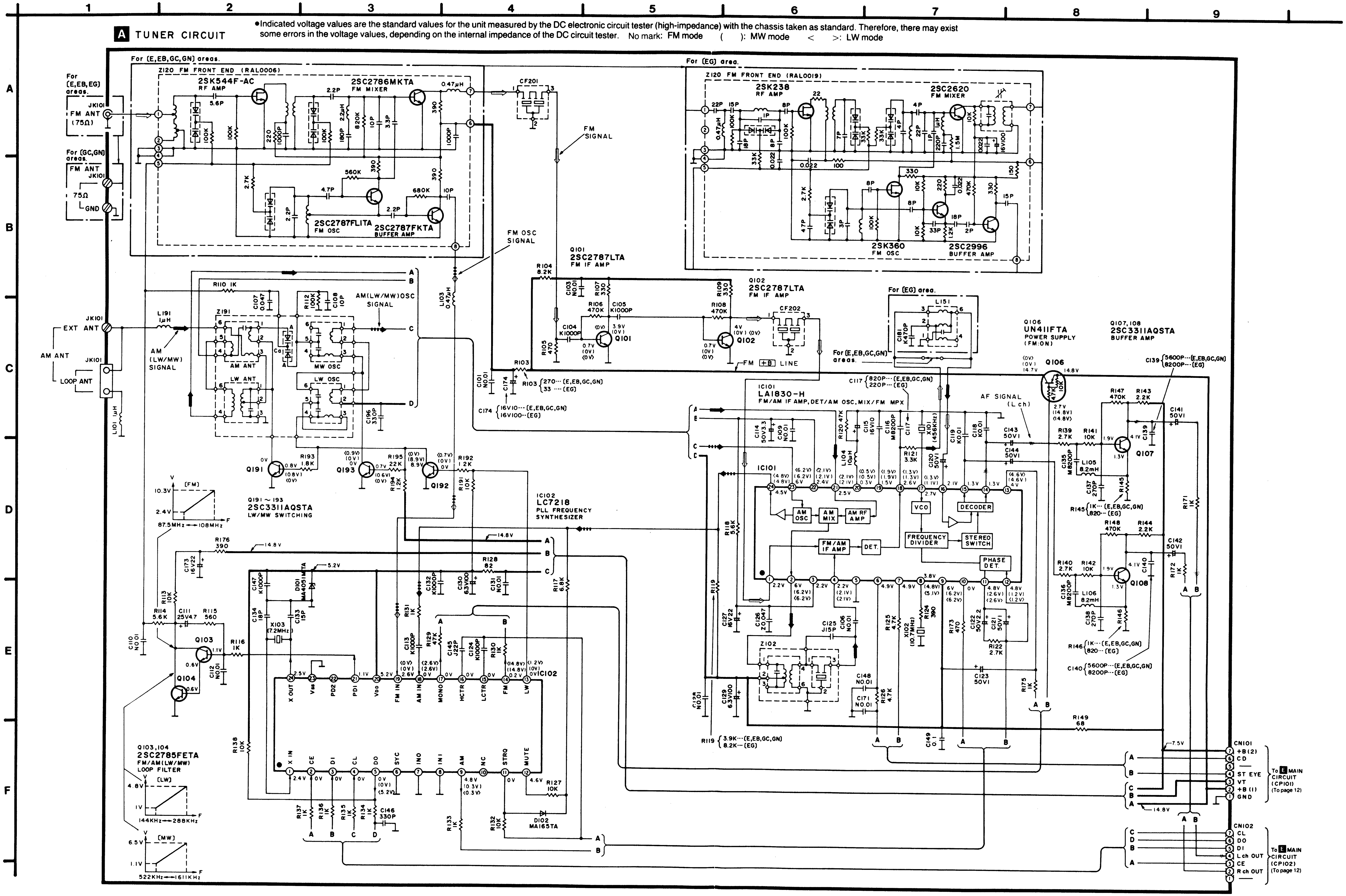

1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
B INPUT/OUTPUT TERMINAL CIRCUIT
FAN MOTOR
JK351
M
R371 10K
R372 82K
D371 MA165TA
R373 2.2K
R374 47K
R358 22
R375 15K
C371 6.3V220
Q371
Q354
Q354 2SC3311AQSTA MOTOR DRIVE
Q371 2SC3311AQSTA MOTOR DRIVE
IC351 BA4558FTI SIGNAL LEVEL DET.
Q352 KSD471ACYGTA MOTOR DRIVE
R354 1K
R353 270K
R357 1/2W39
R356 3.3K
D352 MA4068MTA
C352 0.022
C353 50V2.2
R355 10K
R398 3.3K
R399 150K
D351 MA165TA
R351 56K
C351 16V10
R352 180K
IC351
JK201
AC
B.CLK
CT
B.DATA
AC
B.GND
To SH-CH550: JK203
SL-CH550: JK801
REC R ch
REC L ch
T.R ch OUT
A.GND
T.L ch OUT
C911 Z100P
R202 2.2K
C202 10P
R204 22K
R157 1K
R158 1K
C158 100P
C157 100P
IC201 LC7536 ELECTRIC VOLUME
IC201
R296 5.6K
C204 J0.039
R222 1M
C206 0.022
C210 50V3.3
C214 J8200P
R810 2.7K
C802 47P
R212 2.2K
R281 1K
R282 560
C287 0.01
R5 IN
RCT1
RCT2
R5OUT
R1IN
R1OUT
RVM
Vcc
CE
DI
CL
L5 IN
LCT1
LCT2
L5OUT
L1IN
L1OUT
LVM
VEE
S
VDD
Vss
R295 5.6K
R201 2.2K
C201 10P
C203 J0.039
R203 22K
R221 1M
C205 0.022
C209 50V3.3
C213 J8200P
C286 0.01
C285 0.01
R211 2.2K
C282 0.01
IC202 BA4558FTI BUFFER AMP
IC202
R226 150K
C222 0.022
R206 150K
R210 33K
C208 47P
C212 100P
R208 56K
C221 0.022
R205 150K
C211 100P
R207 56K
R209 33K
C207 47P
C281 0.01
R225 150K
IC801 BU2040F-T2 SYSTEM CONT.
Q801 UN4111TA RELAY DRIVE
IC801
C803 0.1
C801 47P
R809 2.7K
R808 3.9K
R803 10K
Vss
DATA
CLK
VOL MUTE
MUTE PWR
TUNE MUTE
NC
PRO
VDD
PWR
S.BASS
ACS
MAIN MUTE
HP MUTE
C MUTE
R MUTE
R805 5.6K
R801 1K
Q251 UN4115TA MUTING CONT.
Q251
R255 150K
C251 6.3V220
R259 560
Q303
R812 3.3K
Q303 UN4111TA MUTING CONT.
R315 330K
C309 50V1
IC203 BA4558FTI BUFFER AMP
R256 1M
C216 100P
R214 200K
R316 1M
IC301 M5218AL HEADPHONE AMP
IC301
C284 0.01
R228 3.3K
C292 0.022
R294 12K
R216 470K
C218 150P
IC203
R215 470K
C283 0.01
C215 100P
R213 200K
C217 150P
R227 3.3K
R293 12K
C291 0.022
R217 1K
C219 16V10
C305 33P
C303 100P
C382 0.01
C304 100P
R306 56K
C381 0.01
R305 56K
R307 5.6K
C307 50V3.3
R308 5.6K
C306 33P
C308 50V3.3
R309 120
R311 120
C397 0.01
R310 120
R312 120
C398 0.01
R301 5.6K
C301 50V3.3
R303 56K
C905 100P
R313 1K
Q301
Q302
R314 1K
R218 1K
C220 16V10
R302 5.6K
C302 50V3.3
C906 100P
R304 56K
Q301, 302 2SD1450STA MUTING
Q201~204 2SD1450STA MUTING
Q252 UN4115TA MUTING CONT.
R292 100K
R219 330
R223 3.3K
R220 330
R224 3.3K
R291 100K
R253 120
R254 120
Q201
Q203
Q204
Q202
R251 1K
R252 1K
D291 MA165TA
R260 3.9K
Q252
R257 330K
C252 16V10
R258 1M
TP601
R811 220
CP601
VR DT
VR CLK
VR STI
B.DATA
B.CLK
B.GND
T.OUT
To C FL CIRCUIT (CN601) (To page 15)
CP602
DATA
CLK
VP
FL
FL
HOLD
+B(3)
D.GND
To C FL CIRCUIT (CN602) (To page 15)
CP603
HP L ch OUT
HP R ch OUT
HP GND
SD
DI
CE
STEREO
To C FL CIRCUIT (CN603) (To page 15)
CN701A
FL
FL
VP
AC
CT
AC
DT
CLK
STEREO
CE
CN103
DI
SD
T.Lch IN
T.Rch IN
CN501
A.GND
R ch OUT
L ch OUT
PWR
T.MUTE
CN702A
-B
+B(1)
DC
HP GND
HOLD
+B(3)
D.GND
To E MAIN CIRCUIT (CP701) (To page 12)
To E MAIN CIRCUIT (CP103) (To page 12)
To E MAIN CIRCUIT (CP501) (To page 12)
To E MAIN CIRCUIT (CP702) (To page 12)

■ SCHEMATIC DIAGRAM •TUNER CIRCUIT (Parts list on pages 32~35.)

➡ : AM signal line ⇨ : FM signal line ■■■➧ : AM OSC signal line □□□▷ : FM OSC signal line

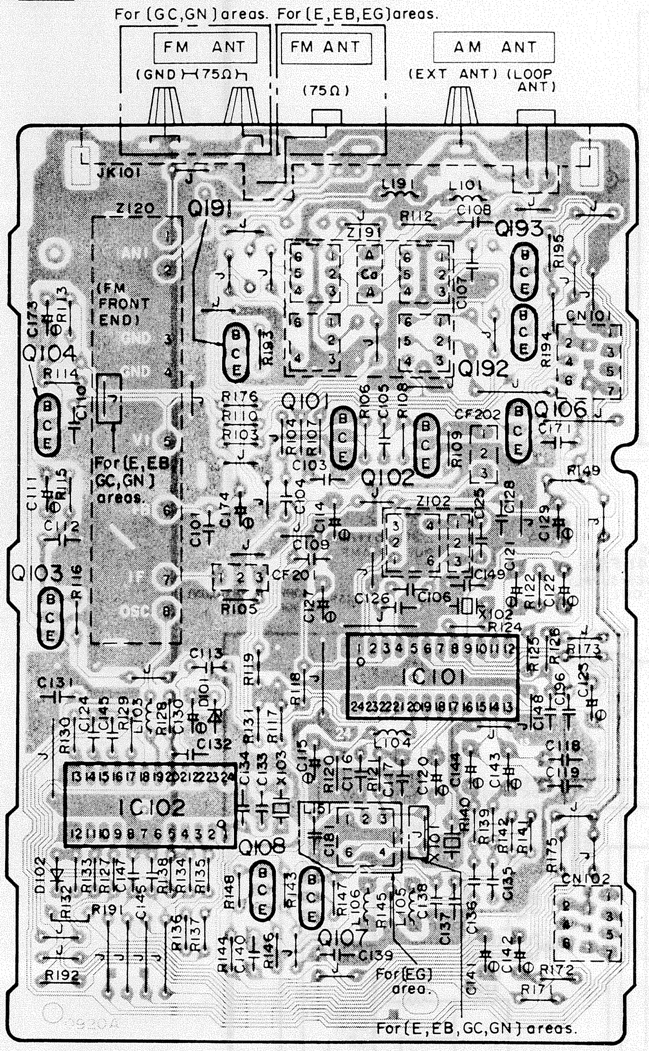
A TUNER CIRCUIT

•Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester. No mark: FM mode ( ): MW mode < >: LW mode


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
For (E,EB,GC,GN) areas.
Z120 FM FRONT END (RAL0006)
2SK544F-AC
RF AMP
2SC2786MKTA
FM MIXER
2SC2787FLITA
FM OSC
2SC2787FKTA
BUFFER AMP
For (E,EB,EG) areas.
JK101
FM ANT
(75Ω)
For (GC,GN) areas.
FM ANT
JK101
75Ω
GND
CF201
FM SIGNAL
FM OSC SIGNAL
For (EG) area.
Z120 FM FRONT END (RAL0019)
2SK238
RF AMP
2SC2620
FM MIXER
2SK360
FM OSC
2SC2996
BUFFER AMP
Q101
2SC2787LTA
FM IF AMP
Q102
2SC2787LTA
FM IF AMP
CF202
FM +B LINE
For (EG) area.
L151
For (E,EB,GC,GN) areas.
Q106
UN411FTA
POWER SUPPLY
(FM:ON)
Q107,108
2SC3311AQSTA
BUFFER AMP
C139 {5600P···(E,EB,GC,GN) 8200P···(EG)
AM(LW/MW)OSC SIGNAL
Z191
AM ANT
MW OSC
LW ANT
LW OSC
EXT ANT
JK101
AM ANT
LOOP ANT
L191 1μH
AM (LW/MW) SIGNAL
L101 1μH
L103 0.47μH
R103 {270···(E,EB,GC,GN) 33···(EG)
C174 {16V10···(E,EB,GC,GN) 16V100···(EG)
C117 {820P···(E,EB,GC,GN) 220P···(EG)
IC101
LA1830-H
FM/AM IF AMP,DET/AM OSC,MIX/FM MPX
AF SIGNAL (L ch)
AM OSC
AM MIX
AM RF AMP
FM/AM IF AMP
DET
VCO
DECODER
FREQUENCY DIVIDER
STEREO SWITCH
PHASE DET.
X101 (456KHz)
R145 {1K···(E,EB,GC,GN) 820···(EG)
R146 {1K···(E,EB,GC,GN) 820···(EG)
C140 {5600P···(E,EB,GC,GN) 8200P···(EG)
Q191~193
2SC3311AQSTA
LW/MW SWITCHING
[FM]
10.3V
2.4V
87.5MHz→108MHz
IC102
LC7218
PLL FREQUENCY SYNTHESIZER
D101 MA4051MTA
X103 (7.2MHz)
X102 (10.7MHz)
Z102
X OUT
Vss
PD2
PD1
VDD
FM IN
AM IN
MONO
HCTR
LCTR
FM
LW
X IN
CE
DI
CL
DO
SYC
INO
IN1
AM
NC
STRQ
MUTE
D102 MA165TA
R119 {3.9K···(E,EB,GC,GN) 8.2K···(EG)
Q103,104
2SC2785FETA
FM/AM(LW/MW) LOOP FILTER
[LW]
4.8V
1V
144KHz→288KHz
[MW]
6.5V
1.1V
522KHz→1611KHz
CN101
+B(2)
CD
ST EYE
VT
+B(1)
GND
To E MAIN CIRCUIT (CP101) (To page 12)
CN102
CL
DO
DI
L ch OUT
CE
R ch OUT
To E MAIN CIRCUIT (CP102) (To page 12)
14.8V
5.2V
7.5V

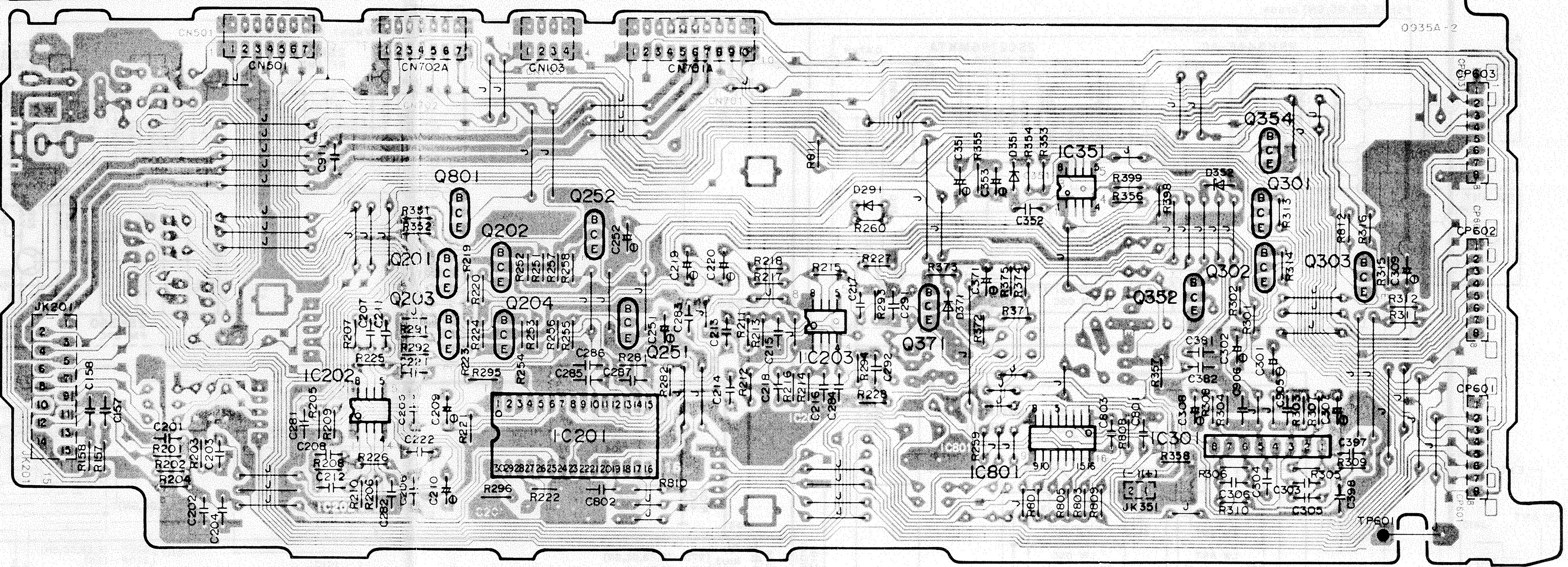
■ PRINTED CIRCUIT BOARD DIAGRAM

A TUNER P.C.B. (REP1452C-T··· (EG)
REP1452D-T··· (E,EB)
REP1452E-T··· (GC,GN))

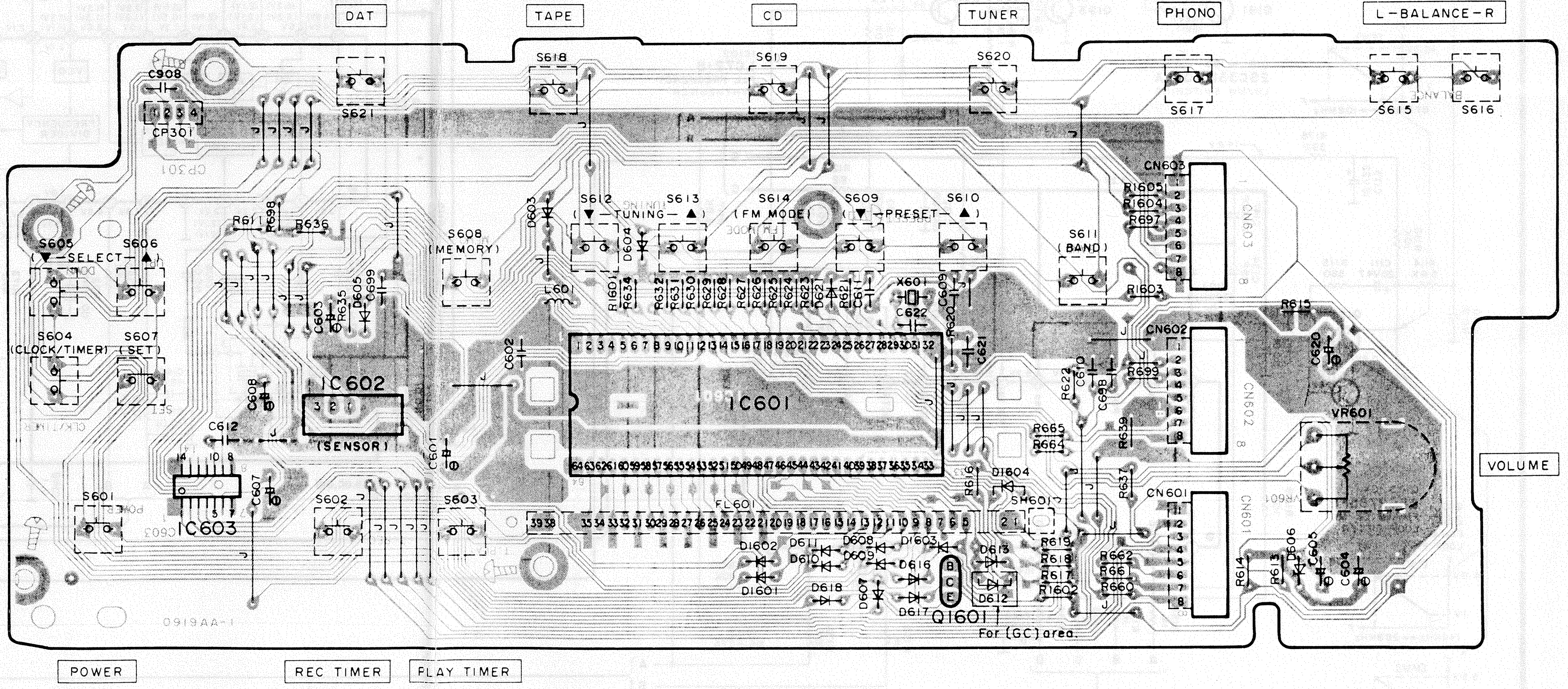

For (GC,GN) areas.
For (E,EB,EG) areas.
FM ANT
(GND)(75Ω)
FM ANT
(75Ω)
AM ANT
(EXT ANT) (LOOP ANT)
JK101
Z120
Q191
L191
L101
Q193
(FM FRONT END)
Q104
Q101
Q102
Q192
Q106
CN101
For (E,EB, GC,GN) areas.
Q103
IC101
IC102
Q108
Q107
CN102
For (EG) area.
For (E,EB,GC,GN) areas.

SH-CH550
SL-CH550

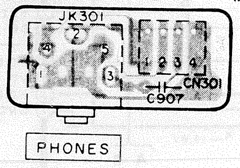
B INPUT/OUTPUT TERMINAL P.C.B. (REP1456B-T)


CN501
CN702A
CN103
CN701A
CP603
CP602
CP601
JK201
Q801
Q252
Q202
Q201
Q203
Q204
Q251
IC202
IC201
IC203
Q371
IC351
Q354
Q301
Q302
Q352
Q303
IC801
IC301
JK351
TP601
0935A-2

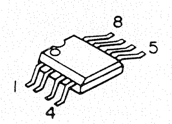
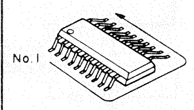
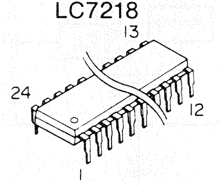
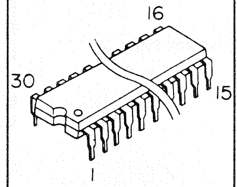
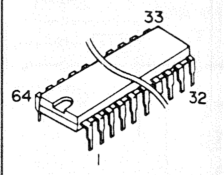
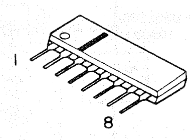
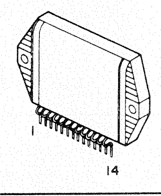
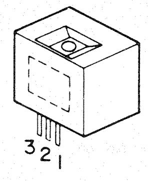
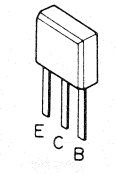
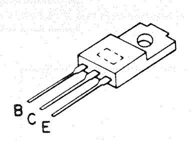
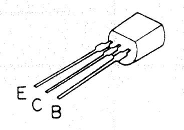
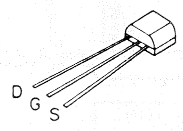
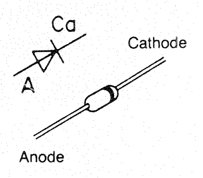
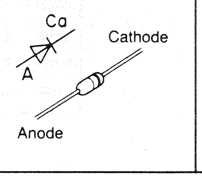
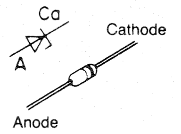
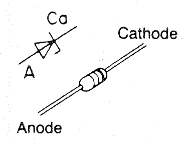
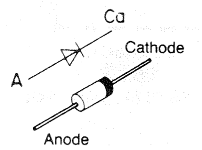
C FL P.C.B. (REP1450C-S··· (E,EB,EG,GN)
REP1450D-S··· (GC))


DAT
TAPE
CD
TUNER
PHONO
L-BALANCE-R
S618
S619
S620
S617
S615
S616
S621
CP301
S605
(▼-SELECT-▲)
S606
S608
(MEMORY)
S612
(▼-TUNING-▲)
S613
S614
(FM MODE)
S609
(▼-PRESET-▲)
S610
S611
(BAND)
S604
(CLOCK/TIMER)
S607
(SET)
IC602
(SENSOR)
IC601
IC603
S601
S602
S603
FL601
CN603
CN602
CN601
VR601
VOLUME
Q1601
For (GC) area.
0919AA-1
POWER
REC TIMER
PLAY TIMER

D HEADPHONES JACK P.C.B. (REP1450C-S··· (E,EB,EG,GN)
REP1450D-S··· (GC))

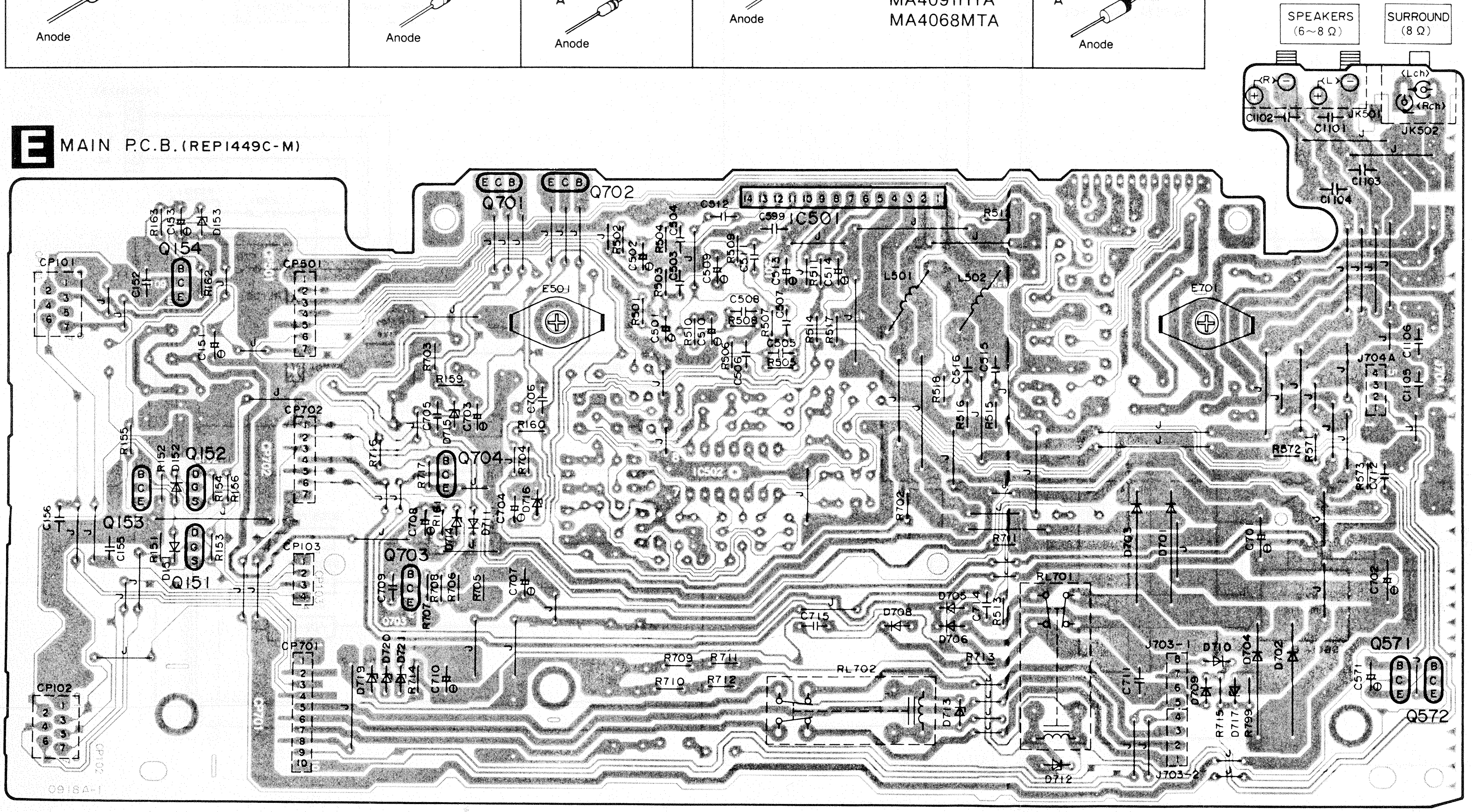

JK301
CN301
C907
PHONES

■ PRINTED CIRCUIT BOARD DIAGRAM

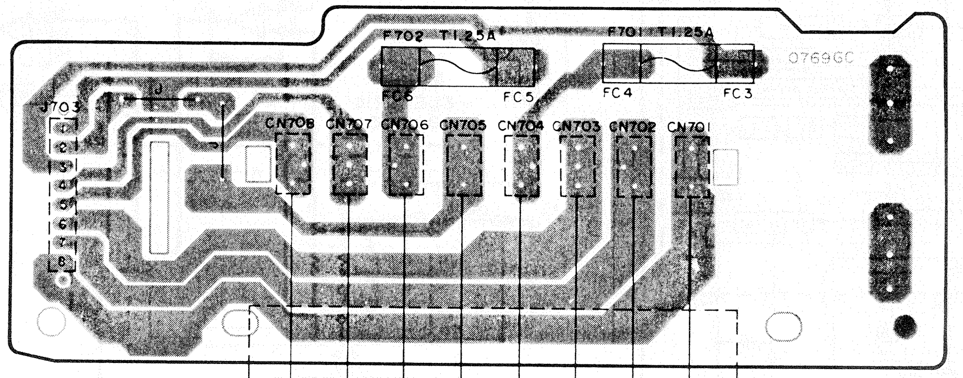
BA4558FT1 		LA5608M-TE-L 14Pin BU2040F-T2 16Pin	LA1830-H LC7218 	LC7536 	M38102M5221S 	M5218AL 
SVI3101D 	RCDHC-278-E 	 UN4111TA	2SA1309AQSTA 2SC2785FETA 2SC2787LTA 2SC3311AQSTA 2SD1450STA UN411FTA UN4115TA UN4110TA	2SB1185EF 2SD1762EF 	KSD471ACYGTA 	2SJ40CTA 
	MA165TA MA185TA 1SS254TA 1SR35200TB	1SS291TA 	MA4160LTA MA4240MTA 		MA4039MTA MA4051MTA MA4062MTA MA4082MTA MA4091HTA MA4068MTA	RVDP300DLF 

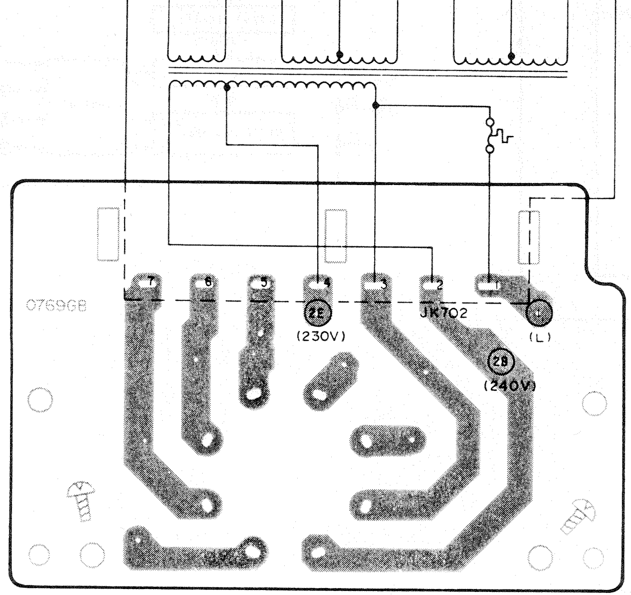
8
5
1
4
No.1
13
24
12
1
16
30
15
1
33
64
32
1
1
8
1
14
3
2
1
E
C
B
B
C
E
E
C
B
D
G
S
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode
Ca
Cathode
A
Anode

E MAIN P.C.B. (REP1449C-M)


SPEAKERS (6~8 Ω)
SURROUND (8 Ω)
(R)
(L)
(Lch)
(Rch)
JK501
JK502
C1101
C1102
C1103
C1104
Q701
Q702
ECB
IC501
E501
E701
L501
L502
CP101
CP102
CP103
CP501
CP701
CP702
Q151
Q152
Q153
Q154
Q703
Q704
Q571
Q572
RL701
RL702
J703-1
J703-2
J704A
D712
0918A-1

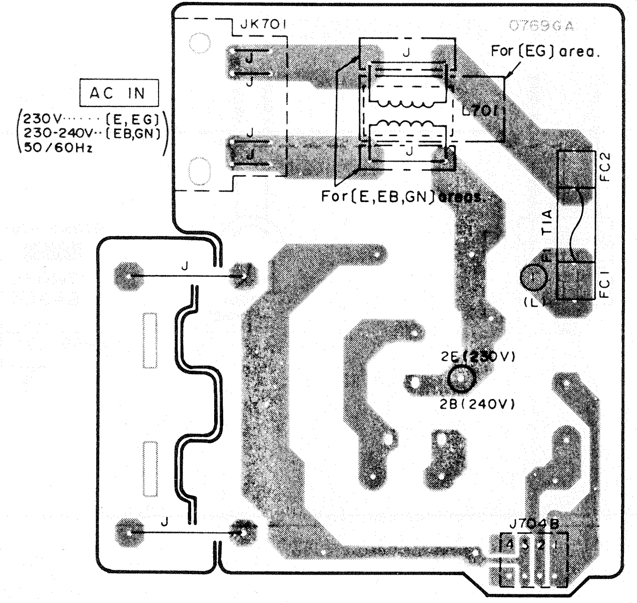
F POWER TRANSFORMER(B) P.C.B. (REP1451C-P … (EG) REP1451D-P … (E) REP1451E-P … (EB) REP1451G-P … (GN))

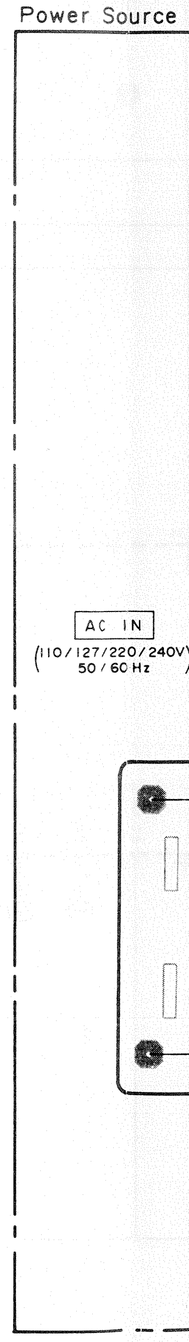

F702 T1.25A
F701 T1.25A
FC6
FC5
FC4
FC3
J703
CN708
CN707
CN706
CN705
CN704
CN703
CN702
CN701
0769GC

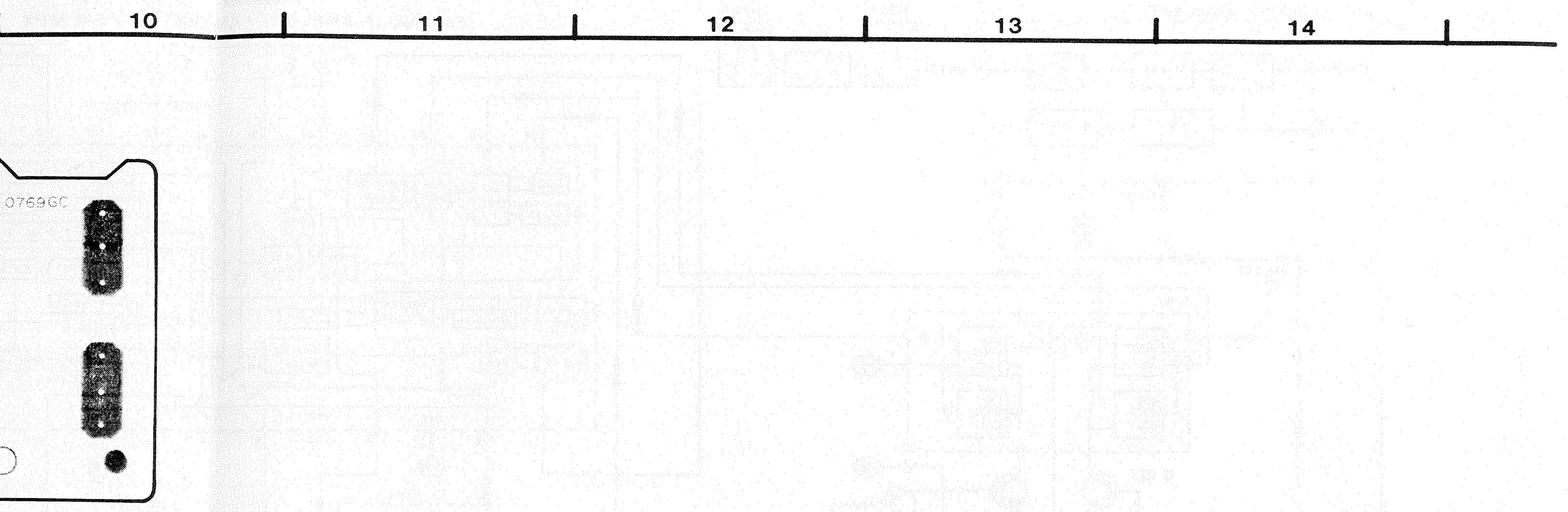

PT701 (Power transformer)
0769GB
JK702
7
6
5
4
3
2
1
2E (230V)
2B (240V)
(L)

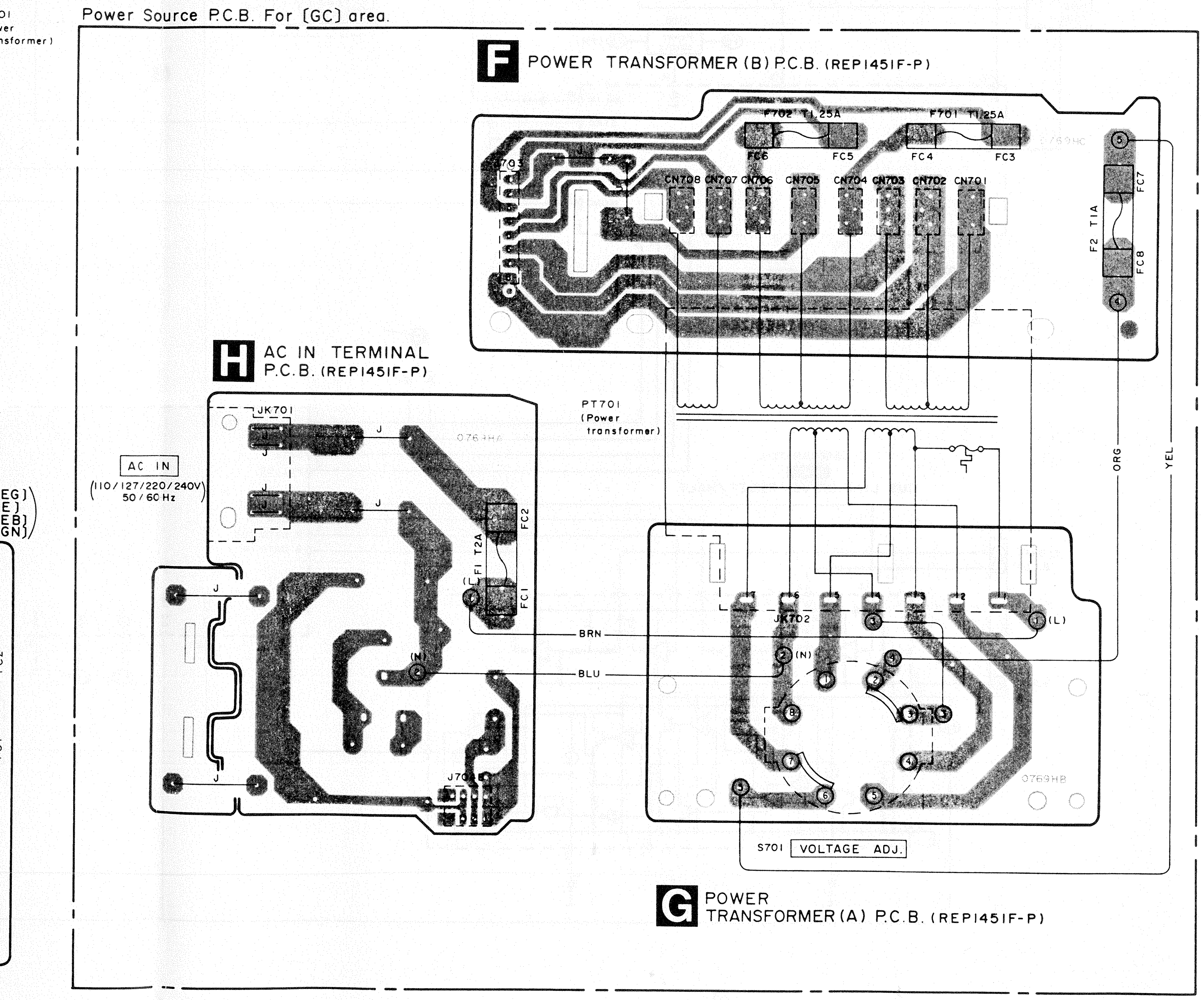
G POWER TRANSFORMER (A) P.C.B. (REP1451C-P … (EG) REP1451D-P … (E) REP1451E-P … (EB) REP1451G-P … (GN))

H AC IN TERMINAL P.C.B. (REP1451C-P… (EG) REP1451D-P… (E) REP1451E-P… (EB) REP1451G-P… (GN))

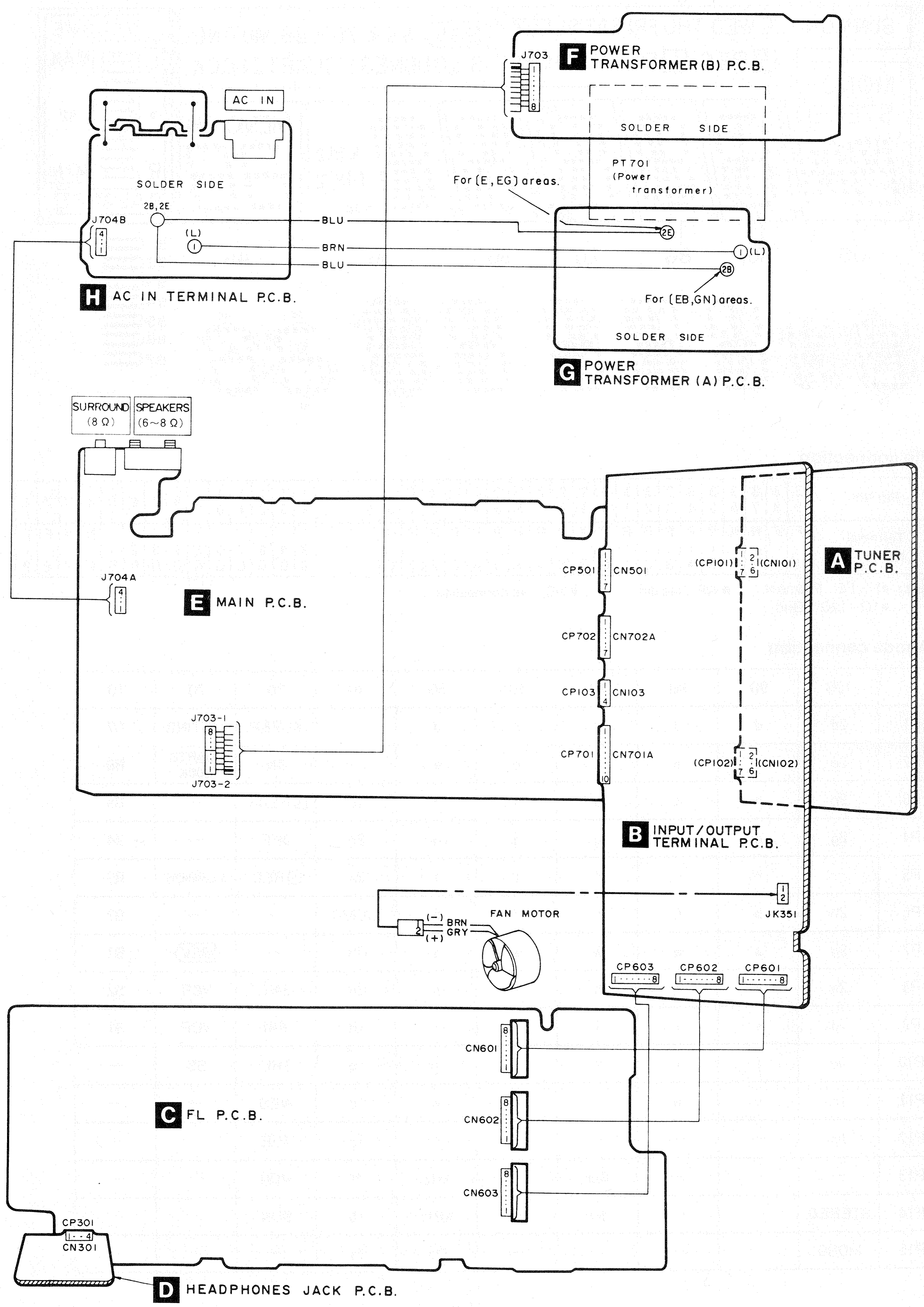

AC IN
(230V…… (E, EG) 230-240V·· (EB,GN) 50/60Hz)
JK701
0769GA
For (EG) area.
L701
For (E,EB,GN) areas.
FC2
T1A
FC1
(L)
2E (230V)
2B (240V)
J
J704B


Power Source
AC IN
(110/127/220/240V 50/60 Hz


10
11
12
13
14
0769GC

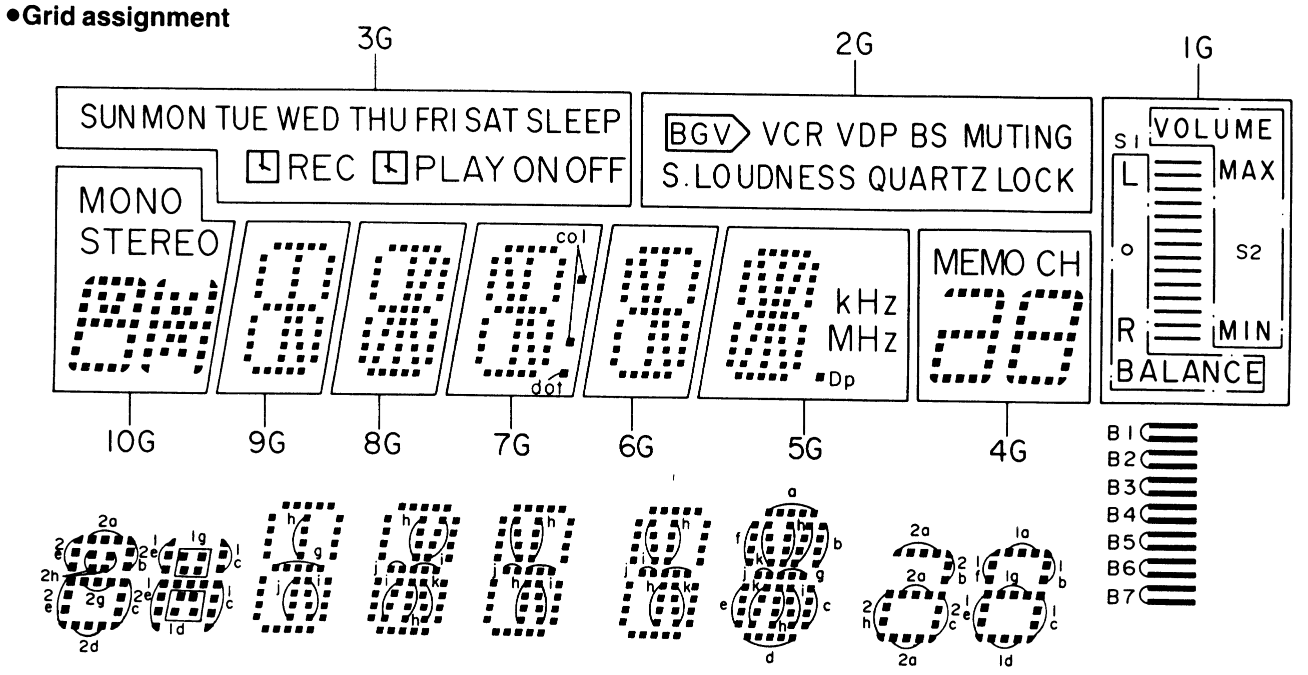

OI
ver
nsformer)
Power Source P.C.B. For [GC] area.
F POWER TRANSFORMER (B) P.C.B. (REP1451F-P)
F702 T1.25A
F701 T1.25A
FC6
FC5
FC4
FC3
J703
CN708
CN707
CN706
CN705
CN704
CN703
CN702
CN701
F2 T1A
FC7
FC8
H AC IN TERMINAL P.C.B. (REP1451F-P)
JK701
AC IN
(110/127/220/240V) 50/60Hz
EG)
E)
EB)
GN)
FI T2A
FC2
FC1
(L)
(N)
J704B
PT701 (Power transformer)
BRN
BLU
ORG
YEL
JK702
(N)
(L)
0769HB
S701 VOLTAGE ADJ.
G POWER TRANSFORMER (A) P.C.B. (REP1451F-P)

■ WIRING CONNECTION DIAGRAM


J703
F POWER TRANSFORMER (B) P.C.B.
SOLDER SIDE
PT701 (Power transformer)
For (E,EG) areas.
AC IN
SOLDER SIDE
2B,2E
J704B
(L)
BLU
BRN
BLU
2E
1 (L)
2B
For (EB,GN) areas.
SOLDER SIDE
H AC IN TERMINAL P.C.B.
G POWER TRANSFORMER (A) P.C.B.
SURROUND (8 Ω)
SPEAKERS (6~8 Ω)
J704A
E MAIN P.C.B.
CP501
CN501
CP702
CN702A
CP103
CN103
CP701
CN701A
(CP101)
(CN101)
(CP102)
(CN102)
A TUNER P.C.B.
J703-1
J703-2
B INPUT/OUTPUT TERMINAL P.C.B.
FAN MOTOR
(−) BRN
GRY (+)
JK351
CP603
CP602
CP601
CN601
CN602
CN603
C FL P.C.B.
CP301
CN301
D HEADPHONES JACK P.C.B.

■ DESCRIPTION OF FL PANEL (FL601: RSL0129-F)

●Grid assignment


3G
2G
1G
SUN MON TUE WED THU FRI SAT SLEEP
REC
PLAY ON OFF
BGV VCR VDP BS MUTING
S.LOUDNESS QUARTZ LOCK
VOLUME
S1
L
MAX
S2
R
MIN
BALANCE
MONO
STEREO
col
dot
kHz
MHz
Dp
MEMO CH
10G
9G
8G
7G
6G
5G
4G
B1
B2
B3
B4
B5
B6
B7
2a
1g
2h
2e
2g
2c
1d
1c
2d
a
b
c
d
e
f
g
h
i
j
k
l
2a
1a
2b
2c
2e
1g
1b
1c
1d

●Pin connection

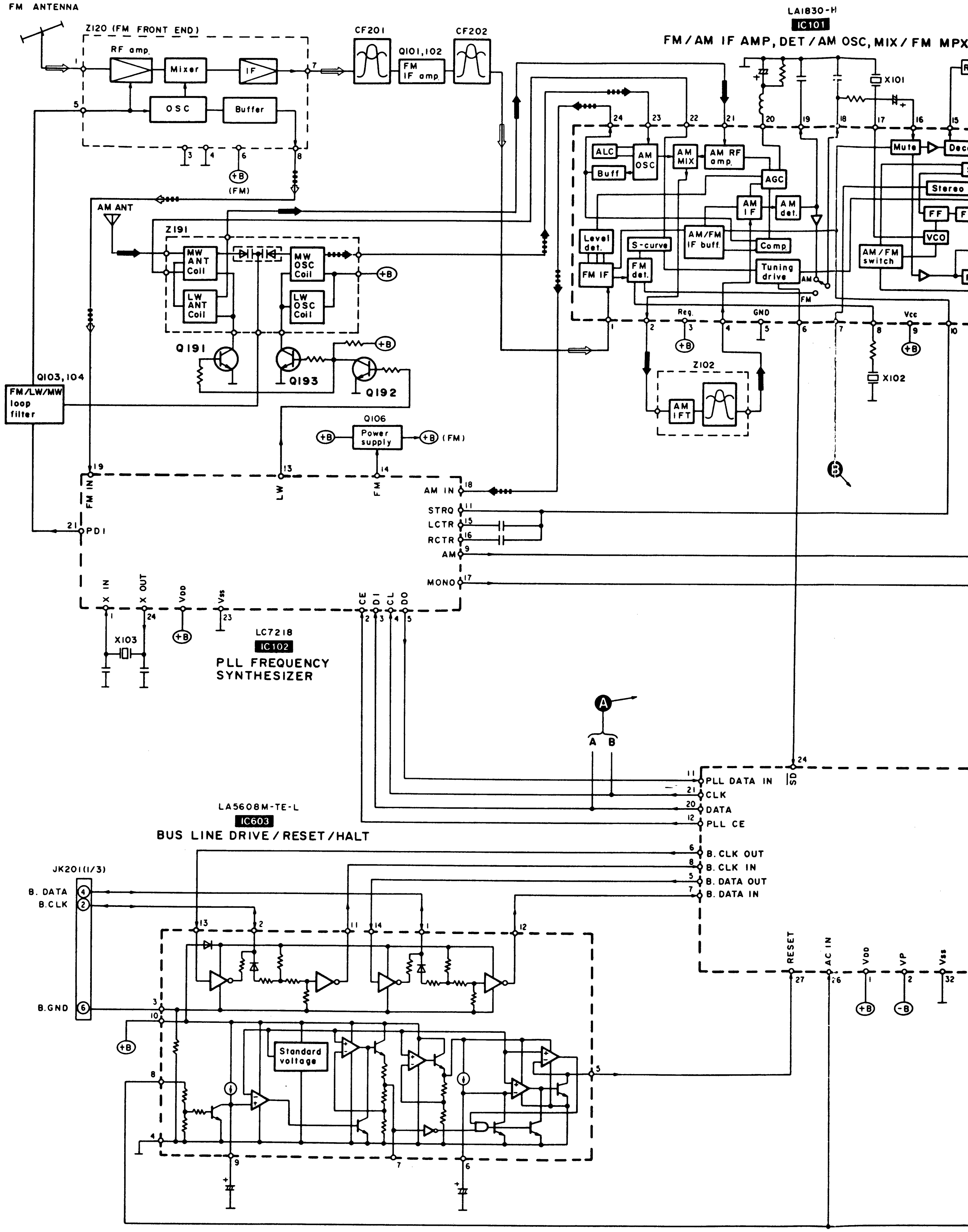
Pin No.	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19 ~ 15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Terminal Name	F1	F1	NP	NP	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	NC	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2

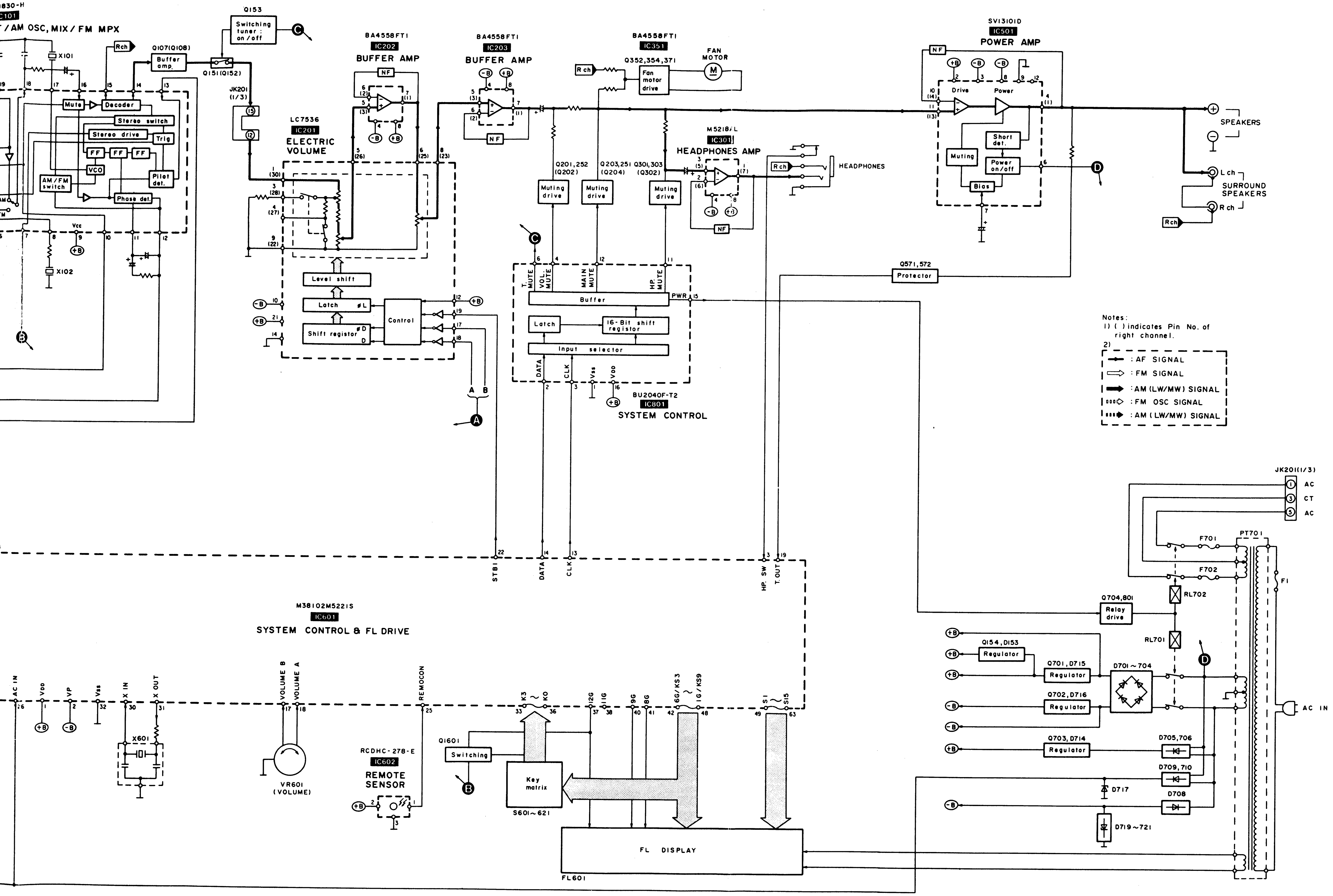
Notes: ●F1, F2…Filament ●NP…No pin ●NC…No connection
●1G~12G…Grid

●Anode connection

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	2d	d	d	d	d	d	—	SLEEP	MUTING	B7
P2	2e	e	e	e	e	e	—	ON	QUARTZ LOCK	B6
P3	2c	c	c	c	c	c	2c	◷PLAY	—	B5
P4	2g	g	g	g	g	g	2b	OFF	—	B4
P5	—	f	f	f	f	f	2a	◷REC	S.LOUDNESS	B3
P6	2b	b	b	b	b	b	MEMO	—	—	B2
P7	2a	a	a	a	a	a	CH	—	BGV	B1
P8	2h	h	h	h	h	h	2h	SAT	VCR	S2
P9	1d	i	i	i	i	i	1d	FRI	VDP	S1
P10	1e	j	j	j	j	j	1e	THU	BS	—
P11	1c	—	k	—	k	k	1c	WED	—	—
P12	1g	—	—	—	—	l	1g	TUE	—	—
P13	—	—	—	Col	—	kHz	1f	MON	—	—
P14	STEREO	—	—	dot	—	MHz	1b	SUN	—	—
P15	MONO	—	—	—	—	Dp	1a	—	—	—

■ BLOCK DIAGRAM


FM ANTENNA
Z120 (FM FRONT END)
RF amp.
Mixer
IF
OSC
Buffer
(FM)
CF201
Q101,102
FM IF amp
CF202
LA1830-H
IC101
FM / AM IF AMP, DET / AM OSC, MIX / FM MPX
X101
ALC
Buff
AM OSC
AM MIX
AM RF amp.
AGC
AM IF
AM det.
Level det.
FM IF
S-curve
FM det.
AM/FM IF buff
Comp
Tuning drive
AM/FM switch
Mute
Deco
Stereo
VCO
FF
Req.
GND
Vcc
X102
Z102
AM IFT
AM ANT
Z191
MW ANT Coil
LW ANT Coil
MW OSC Coil
LW OSC Coil
Q191
Q193
Q192
Q103,104
FM/LW/MW loop filter
Q106
Power supply
(FM)
FM IN
LW
FM
AM IN
STRQ
LCTR
RCTR
AM
MONO
PDI
X IN
X OUT
VDD
VSS
CE
DI
CL
DO
X103
LC7218
IC102
PLL FREQUENCY SYNTHESIZER
A
B
PLL DATA IN
CLK
DATA
PLL CE
SD
B.CLK OUT
B.CLK IN
B.DATA OUT
B.DATA IN
RESET
AC IN
VDD
VP
VSS
LA5608M-TE-L
IC603
BUS LINE DRIVE / RESET / HALT
JK201(1/3)
B. DATA
B.CLK
B.GND
Standard voltage
+B
-B


IC101
/ AM OSC, MIX / FM MPX
X101
X102
Mute
Decoder
Stereo switch
Stereo drive
Trig
FF
VCO
AM/FM switch
Pilot det.
Phase det.
Vcc
Rch
Q107(Q108)
Buffer amp.
Q153
Switching tuner : on / off
Q151(Q152)
JK201 (1/3)
LC7536
IC201
ELECTRIC VOLUME
Level shift
Latch
Shift registor
Control
BA4558FT1
IC202
BUFFER AMP
BA4558FT1
IC203
BUFFER AMP
NF
BA4558FT1
IC351
Q352,354,371
Fan motor drive
FAN MOTOR
Q201,252 (Q202)
Q203,251 (Q204)
Q301,303 (Q302)
Muting drive
M5218AL
IC301
HEADPHONES AMP
HEADPHONES
T. MUTE
VOL. MUTE
MAIN MUTE
HP. MUTE
PWR
Buffer
Latch
16-Bit shift registor
Input selector
DATA
CLK
Vss
VDD
BU2040F-T2
IC801
SYSTEM CONTROL
SVI3101D
IC501
POWER AMP
Drive
Power
Short det.
Muting
Power on/off
Bias
SPEAKERS
L ch
R ch
SURROUND SPEAKERS
Q571,572
Protector
Notes:
1) ( ) indicates Pin No. of right channel.
2)
: AF SIGNAL
: FM SIGNAL
: AM (LW/MW) SIGNAL
: FM OSC SIGNAL
: AM (LW/MW) SIGNAL
STB1
HP. SW
T. OUT
M38102M5221S
IC601
SYSTEM CONTROL & FL DRIVE
AC IN
VDD
VP
Vss
X IN
X OUT
X601
VOLUME B
VOLUME A
VR601 (VOLUME)
REMOCON
RCDHC-278-E
IC602
REMOTE SENSOR
Q1601
Switching
Key matrix
S601~621
K3 ~ K0
12G
11G
9G
8G
6G/KS3 ~ 1G/KS9
S1 ~ S15
FL DISPLAY
FL601
JK201(1/3)
AC
CT
AC
F701
F702
PT701
F1
RL702
RL701
Q704,801
Relay drive
Q154, D153
Regulator
Q701, D715
Q702, D716
Q703, D714
Regulator
D701~704
D705,706
D709,710
D708
D717
D719~721
AC IN
A
B
C
D

■ FUNCTION OF IC TERMINALS

•IC601 (M38102M5221S)

Pin No.	Terminal Name	I/O	Function
1	V_{DD}	—	Power supply (+5 V)
2	VP	—	Pull-down voltage
3	HP. SW	I	Headphone switch
4	AN IN	I	CR timer during backup
5	B.DATA OUT	O	Bus data output
6	B.CLK OUT	O	Bus clock output
7	B.DATA IN	I	Bus data input
8	B.CLK IN	I	Bus clock input
9	REAR VR. b	I	Rotary encoder input (for REAR)
10	REAR VR. a	I	Rotary encoder input (for REAR)
11	PLL DATA IN	I	Serial data input for PLL tuner
12	PLL CE	O	Serial chip enable output for PLL tuner
13	CLK	O	Clock for M50253
14	DATA	O	Clock for M50253
15	CENTER VR. b	I	Rotary encoder input (for CENTER)
16	CENTER VR. a	I	Rotary encoder input (for CENTER)
17	MAIN VR. b	I	Rotary encoder input (for MAIN)
18	MAIN VR. a	I	Rotary encoder input (for MAIN)
19	T OUT	I/O	I: Starting clock adjustment O: 131.072 kHz (POWER OFF) Malfunction detection (POWER ON)
20	DATA	O	Data output for LC7536 & PLL tuner
21	CLK	O	Clock output for LC7536 & PLL tuner
22	STB1	O	Strobing for LC7536 (switched)
23	STB2	—	No use
24	/$\overline{\text{SD}}$	I	Tuner/SD input
25	REMOTE	I	Remote control input
26	AC IN	I	Power down input
27	RESET	I	No use
28	XC IN	—	No use
29	XC OUT	—	
30	X IN	I	4.194304 oscillator
31	X OUT	O	
32	V_{SS}	—	Power supply (GND)
33	K3	I	Key input
34	K2	I	Key input
35	K1	I	Key input
36	K0	I	Key input
37	12G	O	Digit 12 & key scan (lock switch)
38	11G	O	Digit 11 (No use) & RESET
39	10G	O	Digit 10 (No use) & RESET
40	9G	O	Digit 9
41	8G	O	Digit 8
42	KS3/7G	O	Digit 7 & key scan
43	KS4/6G	O	Digit 6 & key scan
44	KS5/5G	O	Digit 5 & key scan
45	KS6/4G	O	Digit 4 & key scan
46	KS7/3G	O	Digit 3 & key scan
47	KS8/2G	O	Digit 2 & key scan
48	KS9/1G	O	Digit 1 & key scan
49 ~ 63	S1 ~ S15	O	Segment output
64	NC	—	No use

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Remote Control Ass'y:
Supply period for three years from termination of production.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC101	LA1830-H	I. C, FM/AM IF AMP. /AM OSC	
IC102	LC7218	I. C, PLL FREQ. SYNTHESIZER	
IC201	LC7536	I. C, ELECTRIC VOLUME	
IC202, 203	SVIBA4558F	I. C, BUFFER AMP.	
IC301	M5218L	I. C, HEADPHONES AMP.	
IC351	SVIBA4558F	I. C, SIGNAL DET.	
IC501	SVI3101D	I. C, POWER AMP.	⚠
IC601	M38102M5221S	I. C, FL DRIVE/SYSTEM CONT.	
IC602	RCDHC-278	I. C, REMOTE SENSOR	
IC603	LA5608M-TE-L	I. C, BUS LINE/HALT/RESET	
IC801	BU2040F-T2	I. C, SYSTEM CONT.	
		TRANSISTOR(S)	
Q101, 102	2SC2787L	TRANSISTOR	
Q103, 104	2SC2785FE	TRANSISTOR	
Q106	UN411FTA	TRANSISTOR	
Q107, 108	2SC3311A-Q	TRANSISTOR	
Q151, 152	2SJ40CTA	TRANSISTOR	
Q153	UN4110TA	TRANSISTOR	
Q154	KSD471ACYGTA	TRANSISTOR	
Q191-193	2SC3311A-Q	TRANSISTOR	
Q201-204	2SD1450RTA	TRANSISTOR	
Q251, 252	UN4115	TRANSISTOR	
Q301, 302	2SD1450RTA	TRANSISTOR	
Q303	UN4111	TRANSISTOR	
Q352	KSD471ACYGTA	TRANSISTOR	
Q354	2SC3311A-Q	TRANSISTOR	
Q371	2SC3311A-Q	TRANSISTOR	
Q571, 572	2SC3311A-Q	TRANSISTOR	
Q701	2SD1762EF	TRANSISTOR	
Q702	2SB1185EF	TRANSISTOR	
Q703	KSD471ACYGTA	TRANSISTOR	
Q704	2SC3311A-Q	TRANSISTOR	
Q801	UN4111	TRANSISTOR	
Q1601	2SA1309A-R	TRANSISTOR	
		DIODE(S)	
D101	MA4051MTA	DIODE	
D102	MA165	DIODE	
D151, 152	1SS254TA	DIODE	
D153	MA4082MTA	DIODE	
D291	MA165	DIODE	
D351	MA165	DIODE	
D352	MA4068M	DIODE	
D371	MA165	DIODE	
D603	1SS291TA	DIODE	
D604, 605	MA165	DIODE	
D606	MA4039MTA	DIODE	⚠
D607-611	MA165	DIODE	
D612	MA165	DIODE	(GC)
D613	MA165	DIODE	
D616-618	MA165	DIODE	
D621	1SS291TA	DIODE	
D701-704	RVDP300DLF	DIODE	⚠
D705, 706	1SR35200TB	DIODE	⚠
D708	1SR35200TB	DIODE	⚠
D709, 710	MA185TA	DIODE	⚠
D711	1SS254TA	DIODE	
D712, 713	MA4240H	DIODE	
D714	MA4062MTA	DIODE	
D715, 716	MA4160-L	DIODE	
D717	MA4051MTA	DIODE	
D719-721	MA4091HTA	DIODE	
D1601-1604	MA165	DIODE	
		VARIABLE RESISTOR(S)	
VR601	EVQWWVF2024B	V. R, VOLUME CONTROL	
		COMPONENT COMBINATION(S)	
Z102	RLI2Z006M-T	COMPONENT COMBINATION	
Z120	RAL0006	TUNER PACK(FM FRONT END)	(E, EB, GC, GN)
Z120	RAL0019	TUNER PACK(FM FRONT END)	(EG)
Z191	RLA6Z005M-T	COMPONENT COMBINATION	
		COIL(S)	
L101	ELESN1R0MA	COIL	
L103	ELEXTR47MA9	COIL	
L104	ELEXT100KA9	COIL	
L105, 106	RLQZB822KT-D	COIL	
L151	SLM1B10M-1M	COIL	(EG)
L191	ELESN1R0MA	COIL	
L501, 502	SLQY07G-40	COIL	
L601	ELEXT100KA9	COIL	
L701	RLQZ600M-W	COIL	⚠ (EG)
		FILTER(S)	
CF201, 202	RLFFETWND01M	CERAMIC FILTER	(E, EB, GC, GN)
CF201, 202	RLFFETMGD01L	CERAMIC FILTER	(EG)
		OSCILLATOR(S)	
X101	RSXZ456KM07M	OSCILLATOR	
X102	RLFDFTD03M	OSCILLATOR	
X103	SVQ49U722-S	OSCILLATOR	
X601	RSXA4M19S02T	OSCILLATOR	
		DISPLAY	
FL601	RSL0129-F	FL DISPLAY	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, POWER	
S602	EVQ21405R	SW, REC. TIMER	
S603	EVQ21405R	SW, PLAY TIMER	
S604	EVQ21405R	SW, CLOCK/TIMER	
S605	EVQ21405R	SW, SELECT(DOWN)	
S606	EVQ21405R	SW, SELECT(UP)	
S607	EVQ21405R	SW, SET	
S608	EVQ21405R	SW, MEMORY	
S609	EVQ21405R	SW, PRESET(DOWN)	
S610	EVQ21405R	SW, PRESET(UP)	
S611	EVQ21405R	SW, BAND	
S612	EVQ21405R	SW, TUNING(DOWN)	
S613	EVQ21405R	SW, TUNING(UP)	
S614	EVQ21405R	SW, FM MODE	
S615	EVQ21405R	SW, BALNCE(L)	
S616	EVQ21405R	SW, BALNCE(R)	
S617	EVQ21405R	SW, PHONO	
S618	EVQ21405R	SW, TAPE	
S619	EVQ21405R	SW, CD	
S620	EVQ21405R	SW, TUNER	
S621	EVQ21405R	SW, DAT	
S701	ESE37263	SW, VOLTAGE ADJ.	⚠ (GC)
		CONNECTOR(S)	
J703	RWJ1808110XX	FLAT CABLE(8P)	
J703-1, 2	RJS1A6604	SOCKET(4P)	
J704A	RJT057W004-1	CONNECTOR(4P)	
J704B	RJU057W004	SOCKET(4P)	
CN101, 102	RJU063W07T	SOCKET(7P)	
CN103	RJU057W004	SOCKET(4P)	
CN301	RJU057W004	SOCKET(4P)	
CN501	RJU057W007	SOCKET(7P)	
CN601-603	RJT003K008-1	CONNECTOR(8P)	
CN701	RJS1A1101T1	SOCKET(1P)	
CN701A	RJU057W010	SOCKET(10P)	
CN702	RJS1A1101T1	SOCKET(1P)	
CN702A	RJU057W007	SOCKET(7P)	
CN703-708	RJS1A1101T1	SOCKET(1P)	
CP101, 102	RJT063W07T	CONNECTOR(7P)	
CP103	RJT057W004-1	CONNECTOR(4P)	
CP301	RJT057W004-1	CONNECTOR(4P)	
CP501	RJT057W007-1	CONNECTOR(7P)	
CP601-603	RJU003K008M1	SOCKET(8P)	
CP701	RJT057W010-1	CONNECTOR(10P)	
CP702	RJT057W007-1	CONNECTOR(7P)	
		EARTH TERMINAL(S)	
E501	SNE1004-1	GND PLATE	
E701	SNE1004-1	GND PLATE	
		FUSE HOLDER(S)	
FC1-6	EYF52BC	FUSE HOLDER	⚠
FC7, 8	EYF52BC	FUSE HOLDER	⚠ (GC)
		RELAY(S)	
RL701, 702	RSY0013M-0	RELAY	⚠
		JACK(S)	
JK101	RJH4202M	ANTENNA TERMINAL	(E, EB, EG)
JK101	RJH4405-1M	ANTENNA TERMINAL	(GC, GN)
JK201	RJT065K15	CONNECTOR(15P)	
JK301	RJJD7S2YA-C	HEADPHONES JACK	
JK351	SJT3213	CONNECTOR(2P)	
JK501	RJR0054M	SPEAKER TERMINAL	
JK502	SJF3068-6N	SURROUND S. P. TERMINAL	
JK701	SJS9236	AC INLET	⚠ (E, EB, EG, GC)
JK701	SJSD16	AC INLET	⚠ (GN)
JK702	SJS702-1	CONNECTOR(7P)	
		TRANSFORMER(S)	
PT701	RTP1M5B010	POWER TRANSFORMER	⚠ (E, EB, EG, GN)
PT701	RTP1M5G005	POWER TRANSFORMER	⚠ (GC)
		FUSE(S)	
F1	XBA2C10TB0	FUSE	⚠ (E, EB, EG, GN)
F1	XBA2C20TB0	FUSE	⚠ (GC)
F2	XBA2C10TB0	FUSE	⚠ (GC)
F701, 702	XBA2C12TB0	FUSE	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
X101	RSXZ456KM07M	OSCILLATOR	
X102	RLFDFTD03M	OSCILLATOR	
X103	SVQ49U722-S	OSCILLATOR	
X601	RSXA4M19S02T	OSCILLATOR	
		DISPLAY	
FL601	RSL0129-F	FL DISPLAY	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, POWER	
S602	EVQ21405R	SW, REC. TIMER	
S603	EVQ21405R	SW, PLAY TIMER	
S604	EVQ21405R	SW, CLOCK/TIMER	
S605	EVQ21405R	SW, SELECT (DOWN)	
S606	EVQ21405R	SW, SELECT (UP)	
S607	EVQ21405R	SW, SET	
S608	EVQ21405R	SW, MEMORY	
S609	EVQ21405R	SW, PRESET (DOWN)	
S610	EVQ21405R	SW, PRESET (UP)	
S611	EVQ21405R	SW, BAND	
S612	EVQ21405R	SW, TUNING (DOWN)	
S613	EVQ21405R	SW, TUNING (UP)	
S614	EVQ21405R	SW, FM MODE	
S615	EVQ21405R	SW, BALNCE (L)	
S616	EVQ21405R	SW, BALNCE (R)	
S617	EVQ21405R	SW, PHONO	
S618	EVQ21405R	SW, TAPE	
S619	EVQ21405R	SW, CD	
S620	EVQ21405R	SW, TUNER	
S621	EVQ21405R	SW, DAT	
S701	ESE37263	SW, VOLTAGE ADJ.	⚠(GC)
		CONNECTOR(S)	
J703	RWJ1808110XX	FLAT CABLE(8P)	
J703-1, 2	RJS1A6604	SOCKET(4P)	
J704A	RJT057W004-1	CONNECTOR(4P)	
J704B	RJU057W004	SOCKET(4P)	
CN101, 102	RJU063W07T	SOCKET(7P)	
CN103	RJU057W004	SOCKET(4P)	
CN301	RJU057W004	SOCKET(4P)	
CN501	RJU057W007	SOCKET(7P)	
CN601-603	RJT003K008-1	CONNECTOR(8P)	
CN701	RJS1A1101T1	SOCKET(1P)	
CN701A	RJU057W010	SOCKET(10P)	
CN702	RJS1A1101T1	SOCKET(1P)	
CN702A	RJU057W007	SOCKET(7P)	
CN703-708	RJS1A1101T1	SOCKET(1P)	
CP101, 102	RJT063W07T	CONNECTOR(7P)	
CP103	RJT057W004-1	CONNECTOR(4P)	
CP301	RJT057W004-1	CONNECTOR(4P)	
CP501	RJT057W007-1	CONNECTOR(7P)	
CP601-603	RJU003K008M1	SOCKET(8P)	

Ref. No.	Part No.	Part Name & Description	Remarks
CP701	RJT057W010-1	CONNECTOR(10P)	
CP702	RJT057W007-1	CONNECTOR(7P)	
		EARTH TERMINAL(S)	
E501	SNE1004-1	GND PLATE	
E701	SNE1004-1	GND PLATE	
		FUSE HOLDER(S)	
FC1-6	EYF52BC	FUSE HOLDER	⚠
FC7, 8	EYF52BC	FUSE HOLDER	⚠(GC)
		RELAY(S)	
RL701, 702	RSY0013M-0	RELAY	⚠
		JACK(S)	
JK101	RJH4202M	ANTENNA TERMINAL	(E, EB, EG)
JK101	RJH4405-1M	ANTENNA TERMINAL	(GC, GN)
JK201	RJT065K15	CONNECTOR(15P)	
JK301	RJJD7S2YA-C	HEADPHONES JACK	
JK351	SJT3213	CONNECTOR(2P)	
JK501	RJR0054M	SPEAKER TERMINAL	
JK502	SJF3068-6N	SURROUND S. P. TERMINAL	
JK701	SJS9236	AC INLET	⚠(E, EB, EG, GC)
JK701	SJSD16	AC INLET	⚠(GN)
JK702	SJS702-1	CONNECTOR(7P)	
		TRANSFORMER(S)	
PT701	RTP1M5B010	POWER TRANSFORMER	⚠(E, EB, EG, GN)
PT701	RTP1M5G005	POWER TRANSFORMER	⚠(GC)
		FUSE(S)	
F1	XBA2C10TB0	FUSE	⚠(E, EB, EG, GN)
F1	XBA2C20TB0	FUSE	⚠(GC)
F2	XBA2C10TB0	FUSE	⚠(GC)
F701, 702	XBA2C12TB0	FUSE	⚠

Notes : • Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
• Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R103	ERDS2TJ271	1/4W 270 E, EB, GC, GN
R103	ERDS2TJ330T	1/4W 33 EG
R104	ERDS2TJ822	1/4W 8.2K
R105	ERDS2TJ471	1/4W 470
R106	ERDS2TJ474	1/4W 470K
R107	ERDS2TJ331	1/4W 330
R108	ERDS2TJ474	1/4W 470K
R109	ERDS2TJ331	1/4W 330
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K
R113	ERDS2TJ103	1/4W 10K
R114	ERDS2TJ562	1/4W 5.6K
R115	ERDS2TJ561	1/4W 560
R116	ERDS2TJ102	1/4W 1K
R117	ERDS2TJ682T	1/4W 6.8K
R118	ERDS2TJ562	1/4W 5.6K
R119	ERDS2TJ392T	1/4W 3.9K E, EB, GC, GN
R119	ERDS2TJ822T	1/4W 8.2K EG
R120	ERDS2TJ473	1/4W 47K
R121	ERDS2TJ332	1/4W 3.3K
R122	ERDS2TJ272T	1/4W 2.7K
R124	ERDS2TJ391	1/4W 390
R125, 126	ERDS2TJ472	1/4W 4.7K
R127	ERDS2TJ103	1/4W 10K
R128	ERDS2TJ820	1/4W 82
R129	ERDS2TJ473	1/4W 47K
R130, 131	ERDS2TJ102	1/4W 1K
R132	ERDS2TJ103	1/4W 10K
R133-137	ERDS2TJ102	1/4W 1K
R138	ERDS2TJ103	1/4W 10K
R139, 140	ERDS2TJ272T	1/4W 2.7K
R141, 142	ERDS2TJ103	1/4W 10K
R143, 144	ERDS2TJ222	1/4W 2.2K
R145, 146	ERDS2TJ102	1/4W 1K E, EB, GC, GN
R145, 146	ERDS2TJ821T	1/4W 820 EG
R147, 148	ERDS2TJ474	1/4W 470K
R149	ERDS2TJ680T	1/4W 68
R151-154	ERDS2TJ104	1/4W 100K
R155	ERDS2TJ102	1/4W 1K
R156	ERDS2TJ105T	1/4W 1M
R157, 158	ERDS2TJ102	1/4W 1K
R159-161	ERDS2TJ331	1/4W 330
R162	ERDS2TJ152	1/4W 1.5K
R163	ERDS2TJ331	1/4W 330
R171, 172	ERDS2TJ102	1/4W 1K
R173	ERDS2TJ471	1/4W 470

Ref. No.	Part No.	Values & Remarks
R175	ERDS2TJ102	1/4W 1K
R176	ERDS2TJ391	1/4W 390
R191	ERDS2TJ103	1/4W 10K
R192	ERDS2TJ122	1/4W 1.2K
R193	ERDS2TJ182	1/4W 1.8K
R194	ERDS2TJ122	1/4W 1.2K
R195	ERDS2TJ223	1/4W 22K
R201, 202	ERDS2TJ222	1/4W 2.2K
R203, 204	ERDAS3G223T	1/4W 22K
R205, 206	ERDS2TJ154	1/4W 150K
R207, 208	ERDAS3G563T	1/4W 56K
R209, 210	ERDAS3G333	1/4W 33K
R211, 212	ERDS2TJ222	1/4W 2.2K
R213, 214	ERDS2TJ204	1/4W 200K
R215, 216	ERDS2TJ474	1/4W 470K
R217, 218	ERDS2TJ102	1/4W 1K
R219, 220	ERDS2TJ331	1/4W 330
R221, 222	ERDS2TJ105T	1/4W 1M
R223, 224	ERDS2TJ332	1/4W 3.3K
R225, 226	ERDS2TJ154	1/4W 150K
R227, 228	ERDS2TJ332	1/4W 3.3K
R251, 252	ERDS2TJ102	1/4W 1K
R253, 254	ERDS2EJ121	1/4W 120
R255	ERDS2TJ154	1/4W 150K
R256	ERDS2TJ105T	1/4W 1M
R257	ERDS2TJ334	1/4W 330K
R258	ERDS2TJ105T	1/4W 1M
R259	ERDS2TJ561	1/4W 560
R260	ERDS2TJ392T	1/4W 3.9K
R281	ERDS2TJ102	1/4W 1K
R282	ERDS2TJ561	1/4W 560
R291, 292	ERDS2TJ104	1/4W 100K
R293, 294	ERDAS3G123T	1/4W 12K
R295, 296	ERDAS3G562T	1/4W 5.6K
R301, 302	ERDS2TJ562	1/4W 5.6K
R303-306	ERDS2TJ563	1/4W 56K
R307, 308	ERDS2TJ562	1/4W 5.6K
R309-312	ERDS2EJ121	1/4W 120
R313, 314	ERDS2TJ102	1/4W 1K
R315	ERDS2TJ334	1/4W 330K
R316	ERDS2TJ105T	1/4W 1M
R351	ERDS2TJ563	1/4W 56K
R352	ERDS2TJ184T	1/4W 180K
R353	ERDS2TJ274	1/4W 270K
R354	ERDS2TJ102	1/4W 1K
R355	ERDS2TJ103	1/4W 10K
R356	ERDS2TJ332	1/4W 3.3K
R357	ERDS1FVJ390T	1/2W 39 ⚠
R358	ERDS2TJ220T	1/4W 22

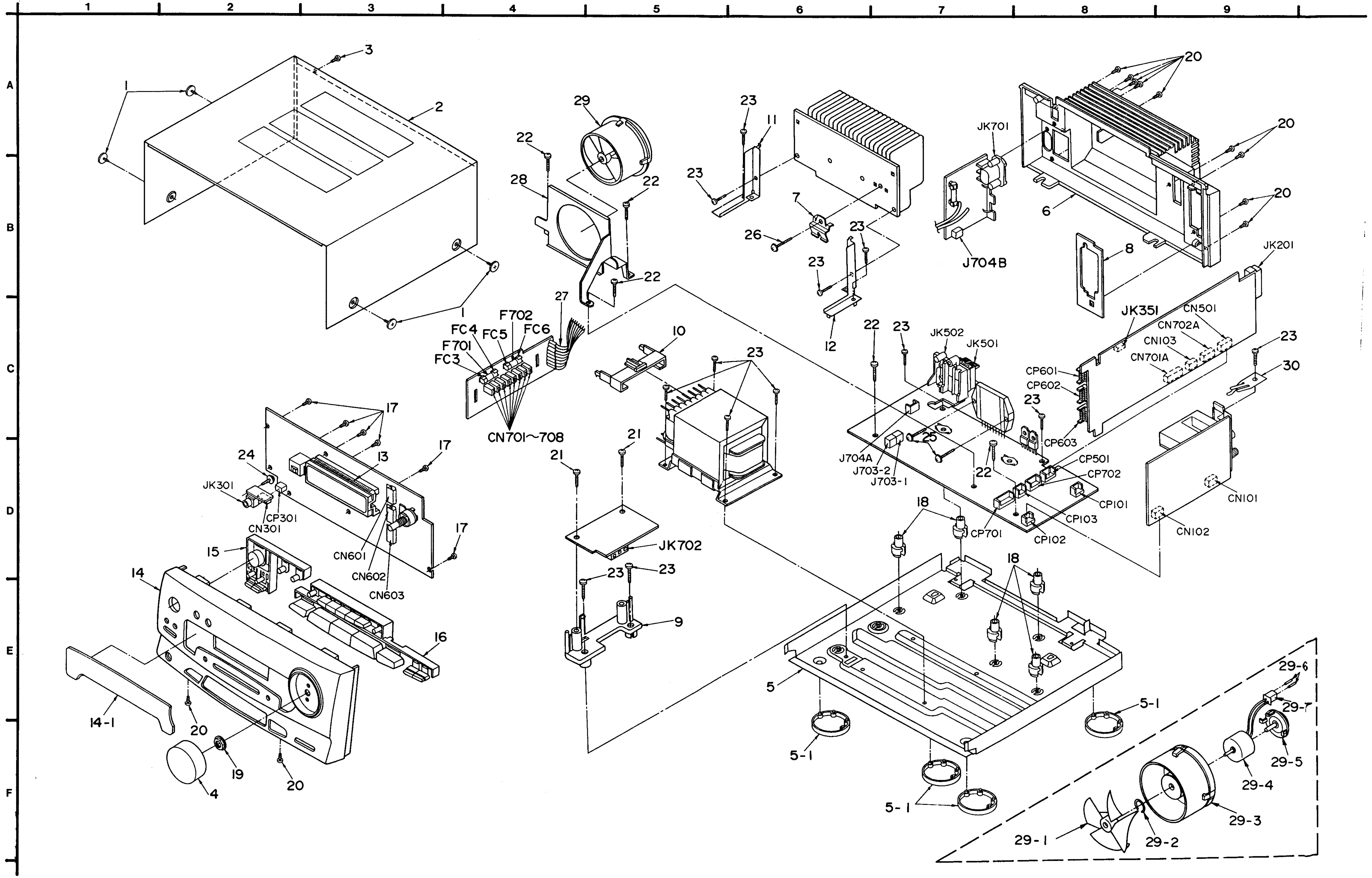
Ref. No.	Part No.	Values & Remarks
R371	ERDS2TJ103	1/4W 10K
R372	ERDS2TJ823T	1/4W 82K
R373	ERDS2TJ222	1/4W 2.2K
R374	ERDS2TJ473	1/4W 47K
R375	ERDS2TJ153	1/4W 15K
R398	ERDS2TJ332	1/4W 3.3K
R399	ERDS2TJ154	1/4W 150K
R501, 502	ERDS2TJ222	1/4W 2.2K
R503-506	ERDS2TJ563	1/4W 56K
R507, 508	ERDS2TJ272T	1/4W 2.7K
R509, 510	ERDS2TJ102	1/4W 1K
R511	ERDS2TJ334	1/4W 330K
R512	ERDS2TJ154	1/4W 150K ⚠
R513	ERDS2TJ684	1/4W 680K ⚠
R514	ERD25FJ470	1/4W 47 ⚠
R515, 516	ERDS1FVJ100T	1/2W 10 ⚠
R517, 518	ERD25FVJ100T	1/4W 10 ⚠
R571	ERDS2TJ823T	1/4W 82K
R572	ERDS2TJ124T	1/4W 120K
R573	ERDS2TJ563	1/4W 56K
R611	ERDS2TJ470	1/4W 47
R613, 614	ERDS2TJ101	1/4W 100 ⚠
R615	ERDS2TJ5R6	1/4W 5.6 ⚠
R616-619	ERDS2TJ104	1/4W 100K
R620	ERDS2TJ221	1/4W 220
R621	ERDS2TJ104	1/4W 100K
R622, 623	ERDS2TJ223	1/4W 22K
R624	ERDS2TJ393	1/4W 39K
R625	ERDS2TJ564	1/4W 560K
R626-629	ERDS2TJ223	1/4W 22K
R630	ERDS2TJ103	1/4W 10K
R631	ERDS2TJ332	1/4W 3.3K
R632	ERDS2TJ103	1/4W 10K
R634	ERDS2TJ223	1/4W 22K
R635	ERDS2TJ224T	1/4W 220K
R636	ERDS2TJ104	1/4W 100K
R637	ERDS2TJ102	1/4W 1K
R639	ERDS2TJ560T	1/4W 56
R660-662	ERDS2TJ102	1/4W 1K
R664, 665	ERDS2TJ102	1/4W 1K
R697	ERDS2TJ102	1/4W 1K
R698	ERDS2TJ332	1/4W 3.3K
R699	ERDS2TJ102	1/4W 1K
R701, 702	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R703, 704	ERDS2TJ103	1/4W 10K
R705, 706	ERDS1FVJ471T	1/2W 470 ⚠
R707	ERDS2TJ680T	1/4W 68
R708	ERDS2TJ562	1/4W 5.6K
R709-712	ERDS1FVJ221T	1/2W 220 ⚠

Ref. No.	Part No.	Values & Remarks
R713	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R714	ERDS1FVJ271T	1/2W 270 ⚠
R715	ERDS2TJ153	1/4W 15K
R716	ERDS2TJ102	1/4W 1K
R717	ERDS2TJ103	1/4W 10K
R799	ERDS2TJ103	1/4W 10K
R801	ERDS2TJ102	1/4W 1K
R803	ERDS2TJ103	1/4W 10K
R805	ERDS2TJ562	1/4W 5.6K
R808	ERDS2TJ392T	1/4W 3.9K
R809, 810	ERDS2TJ272T	1/4W 2.7K
R811	ERDS2TJ221	1/4W 220
R812	ERDS2TJ332	1/4W 3.3K
R1601	ERDS2TJ223	1/4W 22K
R1602	ERDS2TJ473	1/4W 47K
R1603	ERDS2TJ223	1/4W 22K
R1604, 1605	ERDS2TJ102	1/4W 1K
		CAPACITORS
C101	ECBT1C103NS5	16V 0.01U
C103	ECBT1C103NS5	16V 0.01U
C104, 105	ECBT1H102KB5	50V 1000P
C106	ECBT1C103NS5	16V 0.01U
C107	ECBT1H473ZF5	50V 0.047U
C108	ECBT1H100JC5	50V 10P
C109, 110	ECBT1C103NS5	16V 0.01U
C111	ECEA1EKA4R7B	25V 4.7U
C112	ECBT1C103NS5	16V 0.01U
C113	ECBT1H102KB5	50V 1000P
C114	ECEA1HKA3R3B	50V 3.3U
C115	ECEA1CKA100B	16V 10U
C116	ECBT1C822MR5	16V 8200P
C117	ECQB1H821JF3	50V 820P E, EB, GC, GN
C117	ECQP2A221JZT	100V 220P EG
C118, 119	ECFR1E103KR	25V 0.01U
C120, 121	ECEA1HKA010B	50V 1U
C122	ECEA1HKA2R2B	50V 2.2U
C123	ECEA1HKA010B	50V 1U
C124	ECBT1H102KB5	50V 1000P
C125	ECBT1H150JC5	50V 15P
C126	ECBT1H473ZF5	50V 0.047U
C127	ECEA1CKA220B	16V 22U
C128	ECBT1C103NS5	16V 0.01U
C129, 130	ECEA0JKA101B	6.3V 100U
C131	ECBT1C103NS5	16V 0.01U
C132	ECBT1H102KB5	50V 1000P
C133	ECBT1H150JC5	50V 15P
C134	ECBT1H180JC5	50V 18P
C135, 136	ECBT1C822MR5	16V 8200P
C137, 138	ECBT1H271KB5	50V 270P
C139, 140	ECFR1E562KR	25V 5600P E, EB, GC, GN
C139, 140	ECFR1E822KR	25V 8200P EG
C141-144	ECEA1HKA010B	50V 1U
C145	ECBT1H220JC5	50V 22P
C146	ECBT1H331KB5	50V 330P
C147	ECBT1H102KB5	50V 1000P
C148	ECBT1C103NS5	16V 0.01U
C149	ECBT1H104ZF5	50V 0.1U
C151	ECEA1HKA010B	50V 1U
C152	ECKR1H103ZF5	50V 0.01U
C153	ECEA1AKA101B	10V 100U
C155, 156	ECBT1E103ZF	25V 0.01U
C157, 158	ECBT1H101KB5	50V 100P
C171	ECBT1C103NS5	16V 0.01U
C173	ECEA1CKA220B	16V 22U
C174	ECEA1CKA100B	16V 10U E, EB, GC, GN
C174	ECEA1CKA101B	16V 100U EG
C181	ECBT1H471KB5	50V 470P EG
C196	ECBT1H331KB5	50V 330P
C201, 202	ECBT1H101KB5	50V 100P
C203, 204	ECQB1H393JF3	50V 0.039U
C205, 206	ECQB1H223JF3	50V 0.022U
C207, 208	ECBT1H470J5	50V 47P
C209, 210	ECEA1HKA3R3B	50V 3.3U
C211, 212	ECBT1H101KB5	50V 100P
C213, 214	ECQB1H822JF3	50V 8200P
C215, 216	ECBT1H101KB5	50V 100P
C217, 218	ECBT1H151KB5	50V 150P
C219, 220	ECEA1CKA100B	16V 10U
C221, 222	ECQB1H223JF3	50V 0.022U
C251	ECEA0JKA221B	6.3V 220U
C252	ECEA1CKA100B	16V 10U
C281-287	ECBT1E103ZF	25V 0.01U
C291, 292	ECQB1H223JF3	50V 0.022U
C301, 302	ECEA1HKA3R3B	50V 3.3U
C303, 304	ECBT1H101KB5	50V 100P
C305, 306	ECBT1H330J5	50V 33P
C307, 308	ECEA1HKA3R3B	50V 3.3U
C309	ECEA1HKA010B	50V 1U
C351	ECEA1CKA100B	16V 10U
C352	ECBT1E223ZF	25V 0.022U
C353	ECEA1HKA2R2B	50V 2.2U
C371	ECEA0JKA221B	6.3V 220U
C381, 382	ECBT1E103ZF	25V 0.01U
C397, 398	ECBT1E103ZF	25V 0.01U
C501, 502	ECA1HAP3R3B	50V 3.3U
C503, 504	ECBT1H331KB5	50V 330P
C505, 506	ECBT1H6R8K5	50V 6.8P
C507, 508	ECBT1H102KB5	50V 1000P
C509, 510	ECA1HAP3R3B	50V 3.3U
C511, 512	ECBT1H821KB5	50V 820P
C513	ECA1HAP330B	50V 33U
C514	ECA2AAP100B	100V 10U
C515, 516	ECBT1E223ZF	25V 0.022U
C571	ECEA0JKA101B	6.3V 100U
C599	ECBT1C103MS5	16V 0.01U
C601	ECEA0JU102	6.3V 1000U
C602	ECBT1E103ZF	25V 0.01U
C603	ECEA1CKA100B	16V 10U
C604	ECEA1HKA3R3B	50V 3.3U ⚠
C605	ECEA1VKA100B	35V 10U
C607	ECEA1HKA010B	50V 1U
C608	ECEA1HKAR22B	50V 0.22U
C609, 610	ECBT1E103ZF	25V 0.01U
C611	ECBT1H102KB5	50V 1000P
C612	ECBT1E223ZF	25V 0.022U
C620	ECEA1HKA010B	50V 1U ⚠
C621, 622	ECBT1H200JC5	50V 20P
C698, 699	ECBT1E103ZF	25V 0.01U
C701, 702	ECEA1HU222B	50V 2200U
C703, 704	ECEA1CKA330B	16V 33U
C705, 706	ECKR1H103ZF5	50V 0.01U
C707	ECA1HM221B	50V 220U
C708	ECEA1CKA100B	16V 10U
C709	ECBT1E103ZF	25V 0.01U
C710	ECA1HM470B	50V 47U
C711	ECQE1104KF3	100V 0.1U ⚠
C712	ECBT1E223ZF	25V 0.022U
C714, 715	ECKR1H103ZF5	50V 0.01U ⚠
C801, 802	ECBT1H470J5	50V 47P
C803	ECBT1H104ZF5	50V 0.1U
C905, 906	ECBT1H101KB5	50V 100P
C907, 908	ECBT1E223ZF	25V 0.022U
C911	ECKR1H102ZF5	50V 1000P ⚠
C1101, 1102	ECBT1E223ZF	25V 0.022U
C1103-1106	ECBT1H102KB5	50V 1000P

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0202A-1K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	RGW0152-K	VOLUME KNOB	
5	RFKJACH550NK	BOTTOM BOARD ASS'Y	(E, EB, EG, GN)
5	RFKJACH550GC	BOTTOM BOARD ASS'Y	(GC)
5-1	RKA0055-N	FOOT	
6	RFKHACH550EK	REAR GRILL ASS'Y	(E)
6	RFKHACH550EB	RERA GRILL ASS'Y	(EB)
6	RFKHACH550EG	REAR GRILL ASS'Y	(EG)
6	RFKHACH550GC	REAR GRILL ASS'Y	(GC)
6	RFKHACH550GN	REAR GRILL ASS'Y	(GN)
7	RMC0158	TRANSISTOR HOLDER	
8	RMC0164	EARTH PLATE	(E, EB, GC, GN)
8	RMC0182	EARTH PLATE	(EG)
9	RMN0190	P.C.B. HOLDER(A)	
10	RMN0191	P.C.B. HOLDER(B)	
11	RMQ0260	HOLDER(L)	
12	RMQ0261	HOLDER(R)	
13	RMN0183-1	FL HOLDER	
14	RFKGACH550EK	FRONT PANEL ASS'Y	
14-1	RKW0225-K	FL PANEL	
15	RGU0768-K	POWER BUTTON	
16	RGU0769A-K	SELECTOR BUTTON	(E, EB, EG, GN)
16	RGU0769-K	SELECTOR BUTTON	(GC)
17	XTBS26+8J	SCREW	
18	SHE187-2	P.C.B. SPACER	
19	SNE4021-1	NUT	
20	XTBS3+8JFZ1	SCREW	
21	XTB3+12JFZ	SCREW	
22	XTB3+20JFZ	SCREW	
23	XTB3+8JFZ	SCREW	
24	XTWS3+10T	SCREW	
25	XTW3+15T	SCREW	
26	XTW3+8T	SCREW	
27	RWJ1808110XX	FLAT CABLE(8P)	
28	RMN0169	FAN ANGLE	
29	SYE1128-2	FAN ASS'Y	
29-1	SHE232	FAN	
29-2	SUS271	SPRING	
29-3	SHE233-1	FAN CASE	
29-4	MDN-4RB4MRC	MOTOR	
29-5	SHE234	CAP	
29-6	SJT783	TERMINAL	
29-7	SJS5215	CONNECTOR(2P)	
30	RMC0197	EARTH PLATE	(EG)

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG1361	PACKING CASE(SYSTEM)	(E, EG, GC)
P1	RPG1362	PACKING CASE(SYSTEM)	(EB)
P1	RPG1363	PACKING CASE(SYSTEM)	(GN)
P2	RPG1312	PACKING CASE(AMPLIFIER)	
P3	RPG1314	PACKING CASE(CD/PROCESSOR)	
P4	RPG1313	PACKING CASE(DECK)	
P5	RPN0619	PAD(AMPLIFIER)	
P6	RPN0621	PAD(CD/PROCESSOR)	
P7	RPN0620	PAD(DECK)	
P8	XZB45X50A01Z	PROTECTION COVER	
P9	RPQF0047	ACCESSORY BOX	
P10	RPQ0244	SPACER	
P11	XZB22X20C03	PROTECTION COVER	
		ACCESSORIES	
A1	RAK-SC310W	REMOTE CONTROL TRANSMITTER	
A1-1	RKK0020-K	BATTERY COVER	
A2	RFKSACH550EK	INSTRUCTIONS MANUAL	(E)
A2	RQT1662-B	INSTRUCTIONS MANUAL	(EB, GN)
A2	RFKSACH550EG	INSTRUCTIONS MANUAL	(EG)
A2	RFKSACH550GC	INSTRUCTIONS MANUAL	(GC)
A3	RQA0013	WARRANTY CARD	(E, EB, EG)
A3	RQX7433ZA	WARRANTY CARD	(GN)
A4	RQCB0169	SERVICE CENTER LIST	
A5	REX0462	FLAT CABLE(15P)	
A6	RJA0019-1K	AC POWER SUPPLY CORD	⚠(E, EG)
A6	VJA0733	AC POWER SUPPLY CORD	⚠(EB)
A6	RJA0004	AC POWER SUPPLY CORD	⚠(GC)
A6	SJA173	AC POWER SUPPLY CORD	⚠(GN)
A7	SWXS257M	SPEAKER CORD	
A8	RSA0007	FM INDOOR ANTENNA	(E, EB, EG)
A8	RSA0006	FM INDOOR ANTENNA	(GC, GN)
A9	SPB1163T	AM(LW/MW)LOOP ANTENNA	
A9-1	SMA233-1M	ANTENNA HOLDER	
A9-2	XTN3+10AFZ	SCREW	
A10	SJP9009	ATTACHMENT PLUG	⚠(EB)
A11	SJP9215	POWER PLUG ADAPTOR	⚠(GC)

■ CABINET PARTS LOCATION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CN702A
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J703-1
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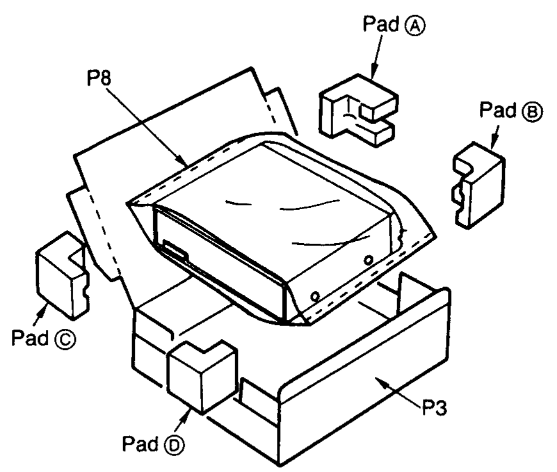
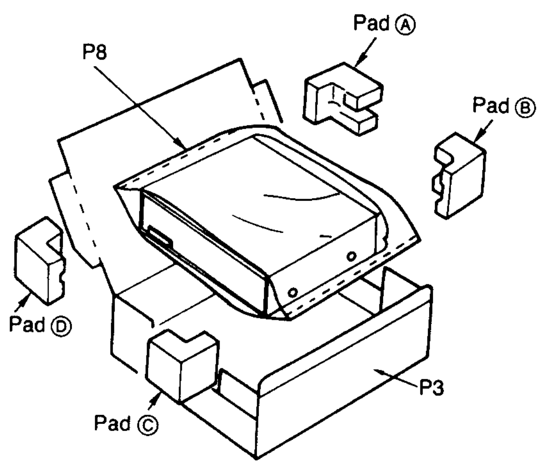
CP701
CN101
CN102
18
15
14
CN601
CN602
CN603
JK702
9
16
5
5-1
14-1
19
4
29-6
29-7
29-5
29-4
29-3
29-2
29-1

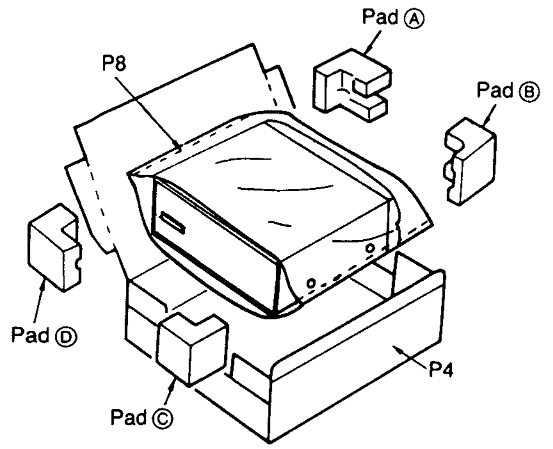
■ PACKAGING


Pad Ⓐ
P8
Pad Ⓑ
Pad Ⓒ
P3
Pad Ⓓ

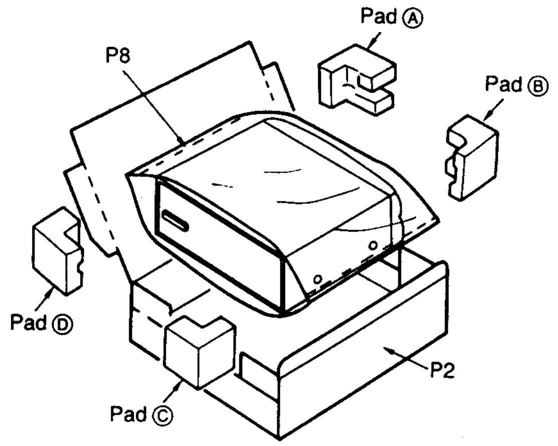
P6: Pad Ⓐ Ⓑ Ⓒ Ⓓ
(SL-CH550: Compact disc player)


Pad Ⓐ
P8
Pad Ⓑ
Pad Ⓓ
P3
Pad Ⓒ

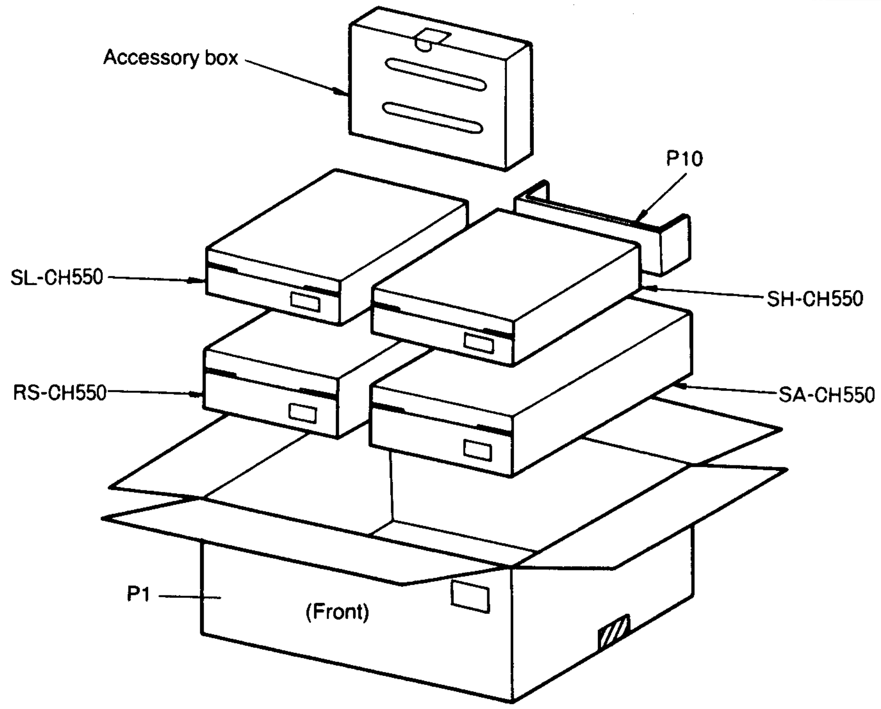
P6: Pad Ⓐ Ⓑ Ⓒ Ⓓ
(SH-CH550: Sound processor)

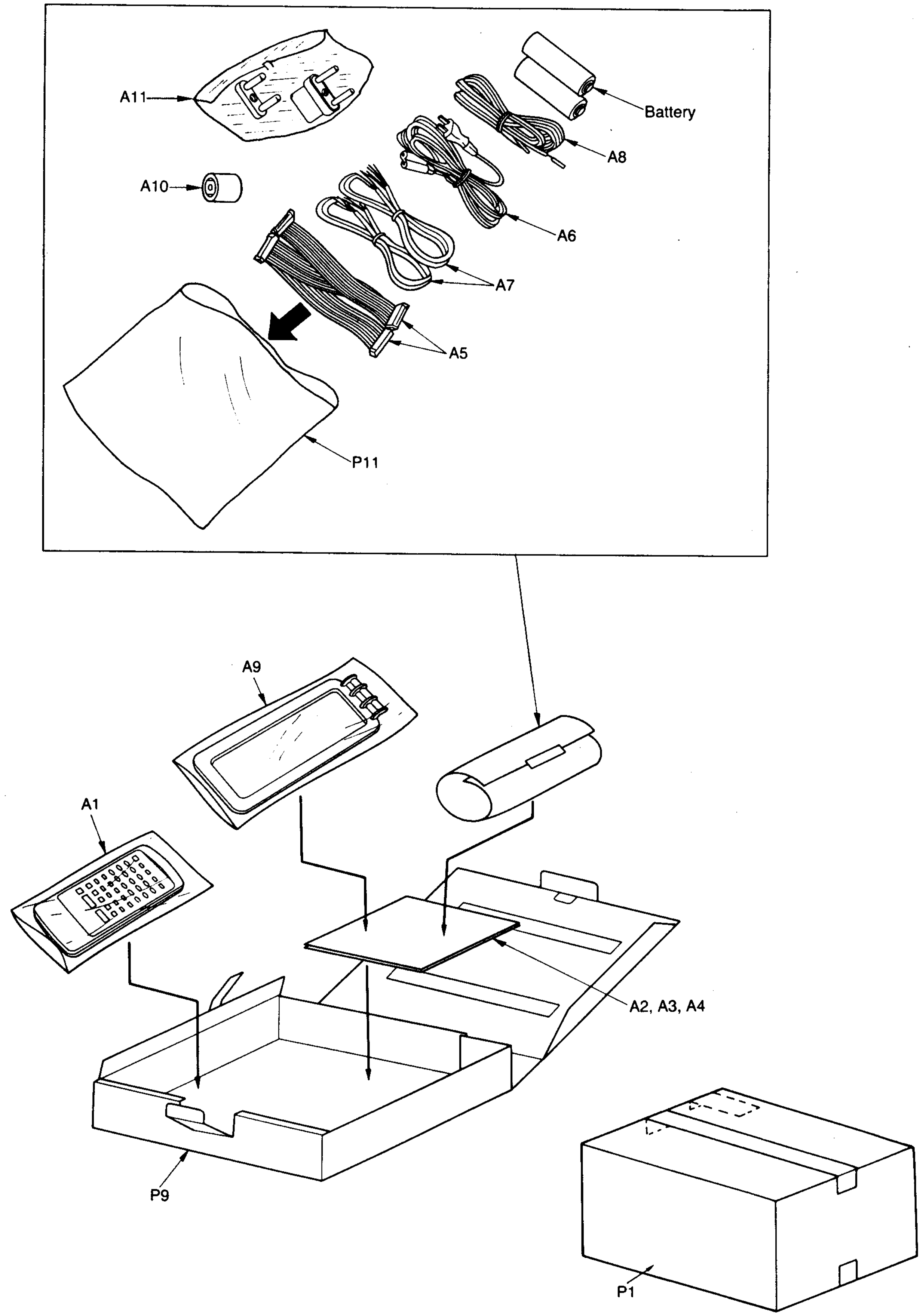

Pad Ⓐ
P8
Pad Ⓑ
Pad Ⓓ
P4
Pad Ⓒ

P7: Pad Ⓐ Ⓑ Ⓒ Ⓓ
(RS-CH550: Cassette deck)


Pad Ⓐ
P8
Pad Ⓑ
Pad Ⓓ
P2
Pad Ⓒ

P5: Pad Ⓐ Ⓑ Ⓒ Ⓓ ass'y
(SA-CH550: Tuner amplifier)


Accessory box
P10
SL-CH550
SH-CH550
RS-CH550
SA-CH550
P1
(Front)


A11
Battery
A8
A10
A6
A7
A5
P11
A9
A1
A2, A3, A4
P9
P1

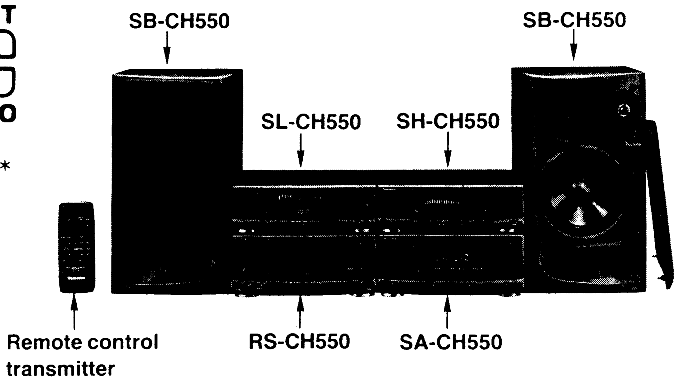
ORDER NO. AD9208264C8

Service Manual

Compact Disc Player

COMPACT
disc
DIGITAL AUDIO

MASH*
multi-stage noise shaping



Compact Disc Player

SL-CH550

Colour

(K) .... Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania *	(K)

System: SC-CH550

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

NEW TRAVERSE DECK (RAE0111Z) (Refer to page 24.)

SPECIFICATIONS

(DIN 45 500)

■ AUDIO	
Frequency response	2–20,000 Hz, ±1 dB
Wow & Flutter	Below measurable limit
■ PICKUP	
Wavelength	780 nm
■ GENERAL	
Dimensions (W×H×D)	270×89.5×257 mm
Weight	2.1 kg

Notes:
1. Specifications are subject to change without notice.
2. Weight and dimensions are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

*
- ●Technics (or Panasonic) developed the world's first MASH type DAC and ADC. MASH technology was invented by NTT (LSI Labs).
- ●MASH is a trademark of NTT.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

*Europe area...Made in PAES

Technics

■ CONTENTS

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- •PRECAUTION OF LASER DIODE 2, 3
- •LOCATION OF CONTROLS 3, 4
- •DISASSEMBLY INSTRUCTIONS .... 5~12
- •DESCRIPTION OF FL PANEL........................... 13
- •SCHEMATIC DIAGRAM .... 14~19
- •PRINTED CIRCUIT BOARD DIAGRAM................ 20~22
- •WIRING CONNECTION DIAGRAM 23

Page
- •NEW DIGITAL SERVO CIRCUIT 24
- •MEASUREMENTS AND ADJUSTMENTS 24, 25
- •FUNCTION OF IC TERMINALS .... 26~28
- •TROUBLESHOOTING GUIDE 29, 30
- •BLOCK DIAGRAM.................................. 31~34
- •REPLACEMENT PARTS LIST .... 35~38, 40, 41
- •CABINET PARTS LOCATION 39
- •LOADING UNIT PARTS LOCATION 42

■ HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

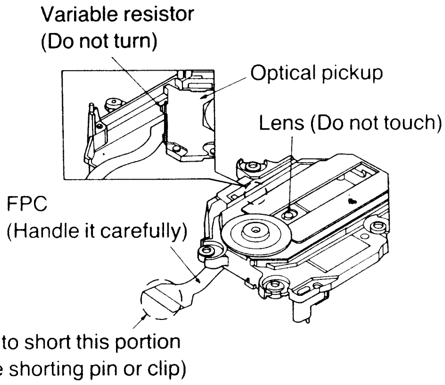
•Handling of traverse deck (optical pickup)

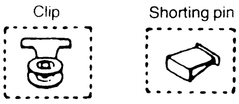
1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
2. To prevent the breakdown of the laser diode, an anti-static shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
3. Take care not to apply excessive stress to the flexible board (FPC board).
4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

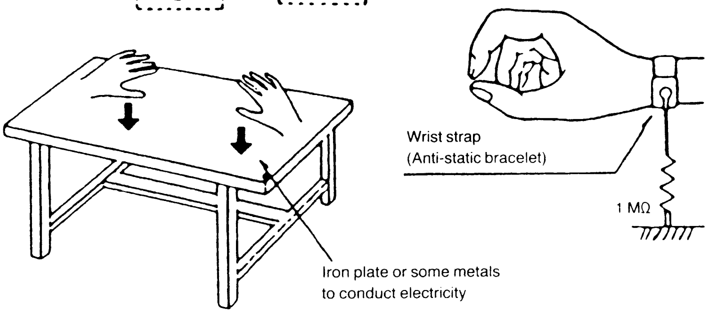
•Grounding for electrostatic breakdown prevention

1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution:
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).







■ PRECAUTION OF LASER DIODE

CAUTION: This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length: 780 nm
Maximum output radiation power from pick up: 100 μW/VDE

Laser radiation from the pick up lens is safety level, but be sure the followings:

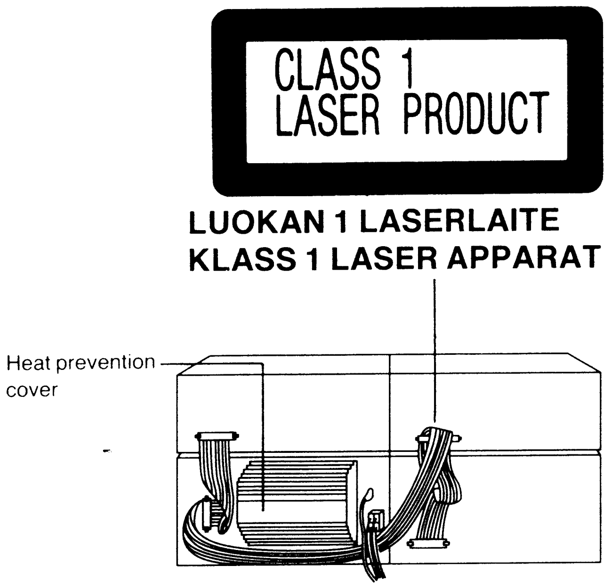
1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not lock at the focus lens using optical instruments.
4. Recommend not to lock at pick up lens for a long time.

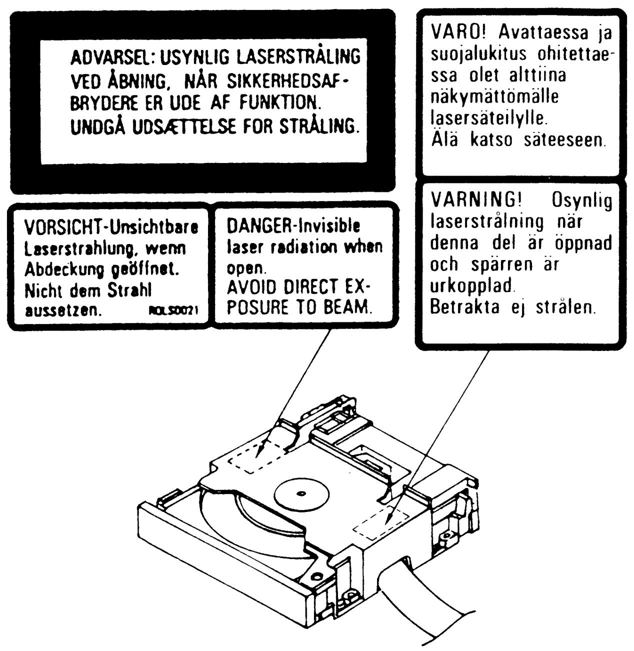
ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahit.

Wellenlänge: 780 nm
Maximale strahlungsleistung der lasereinheit: 100 μW/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
2. Den werksseitig justierten einstellregler der lasereinreit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.

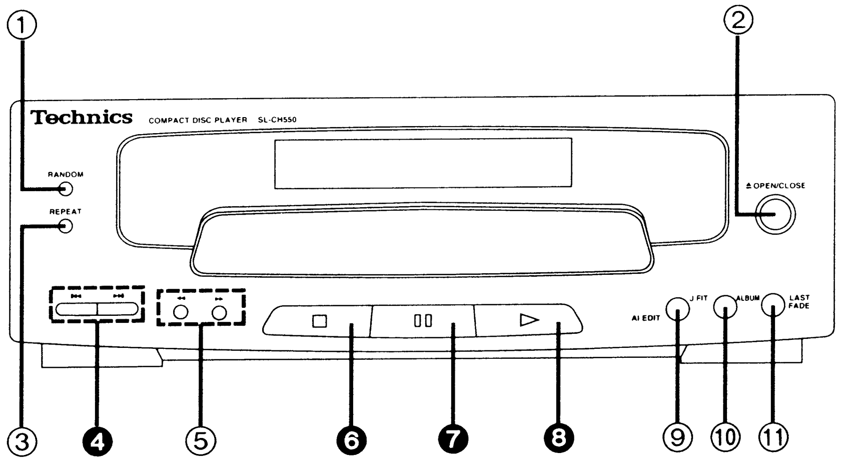

CLASS 1
LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
Heat prevention cover


ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAF-BRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VORSICHT-Unsichtbare Laserstrahlung, wenn Abdeckung geöffnet. Nicht dem Strahl aussetzen. RQLS0021
DANGER-Invisible laser radiation when open. AVOID DIRECT EX-POSURE TO BEAM.
VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

NOTES:

Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROLS


①
②
Technics
COMPACT DISC PLAYER SL-CH550
RANDOM
REPEAT
▲OPEN/CLOSE
AI EDIT
J.FIT
ALBUM
LAST FADE
③
❹
⑤
❻
❼
❽
⑨
⑩
⑪

① **Random play button (RANDOM)**
Press to play the disc's tracks in random order.

② **Disc tray open/close button (▲ OPEN/CLOSE)**
Press to open and close the disc tray.

③ **Repeat button (REPEAT)**
Press to activate the repeat mode.

❹ **Skip buttons (|◀◀, ▶▶|)**
Press to skip tracks.

⑤ **Search buttons (◀◀, ▶▶)**
Press and hold to find the desired point on the track while in the play mode.

❻ **Stop button (□)**
Press to stop the disc play.

❼ **Pause button (▯▯)**
Press to stop the disc play temporarily.

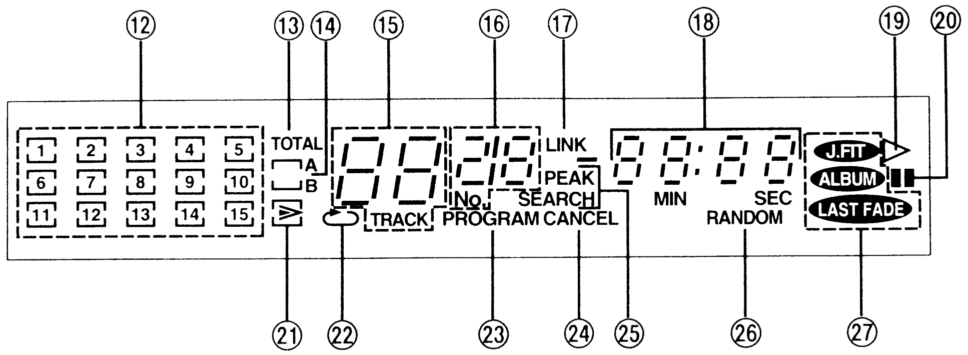
❽ **Play button (▷)**
Press to start disc play and synchro start function.

⑨ **Fit edit button (J. FIT)**
Press to activate the fit editing mode.

⑩ **Sequential CD recording button (ALBUM)**
Press to activate the sequential CD recording mode.

⑪ **Last fade edit button (LAST FADE)**
Press to activate the fade out editing mode.

•Display section


⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
TOTAL
A
B
LINK
PEAK
No.
SEARCH
TRACK
PROGRAM CANCEL
MIN
SEC
RANDOM
J.FIT
ALBUM
LAST FADE
㉑
㉒
㉓
㉔
㉕
㉖
㉗

⑫ **Matrix display**
Shows the total number of tracks on a disc, and shows the current playing track by flashing.

⑬ **Total tracks indicator (TOTAL)**
Lights to show the total number of tracks edited on side A and B when you use the edit-recording from a compact disc.

⑭ **Tape side indicator (A, B)**
Shows which side of the cassette tape (A or B) will be recorded on when you use the edit-recording from a compact disc.

⑮ **Track number display**
Shows the total number of tracks, and current playing or recording track number.

⑯ **Program number display (No.)**
Lights together with the program indicator to show the programmed order.

⑰ **Link indicator (LINK)**
Lights to show the disc link is possible when you use the edit-recording from a compact disc.

⑱ **Time display**
Shows the total playing time on the disc, and elapsed play time of the current track.

⑲ **Play indicator (▷)**
Lights when you play a compact disc.

⑳ **Pause indicator (▮▮)**
Lights when you press the pause button to stop the disc play temporarily.

㉑ **Over indicator (⋗)**
Lights if there are 16 or more tracks on a disc.

㉒ **Repeat mode indicator (⟲)**
Lights during the repeat mode of a compact disc.

㉓ **Program indicator (PROGRAM)**
Lights during program play mode of a compact disc.

㉔ **Program cancel indicator (CANCEL)**
Lights when you cancel a program.

㉕ **Peak search indicator (PEAK SEARCH)**
In the edit-recording mode, lights when the compact disc player is automatically scanning the peak level on a disc. When peak search ends, "PEAK" flashes to indicate the peak level of a compact disc.

㉖ **Random play indicator (RANDOM)**
Lights during the random play mode.

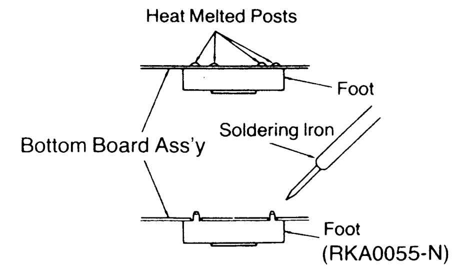
㉗ **Edit mode indicators (J. FIT, ALBUM, LAST FADE)**

J.FIT:	Lights when you activate the fit editing mode.
ALBUM:	Lights when you activate the sequential CD recording mode.
LAST FADE:	Lights when you activate the fade out editing mode.

Note:
The functions indicated by the numbers with black background (for example ❹) can also be activated from the remote control.

•Replacement of the Foot

1. Remove the 4 heat melted posts on the bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the bottom board ass'y, melt the 4 posts with a soldering iron.


Heat Melted Posts
Foot
Bottom Board Ass'y
Soldering Iron
Foot
(RKA0055-N)

■ DISASSEMBLY INSTRUCTIONS

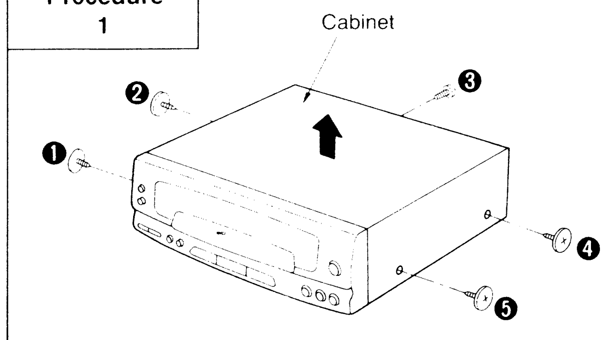
Warning: This product uses a laser diode. Refer to caution statements on page 2.
ACHTUNG: Die lasereinheit nicht zerlegen.
Die lasereilnheit darf nur gegen eine vom hersteller spezifizierte einheit ausgetauscht werden.

"ATTENTION SERVICER"
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1

Removal of the Cabinet

Procedure 1

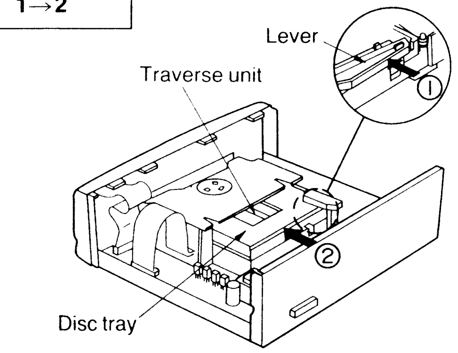

Cabinet
❶
❷
❸
❹
❺

1. Remove the 5 screws (❶~❺).
2. Remove the cabinet in the direction of arrow.

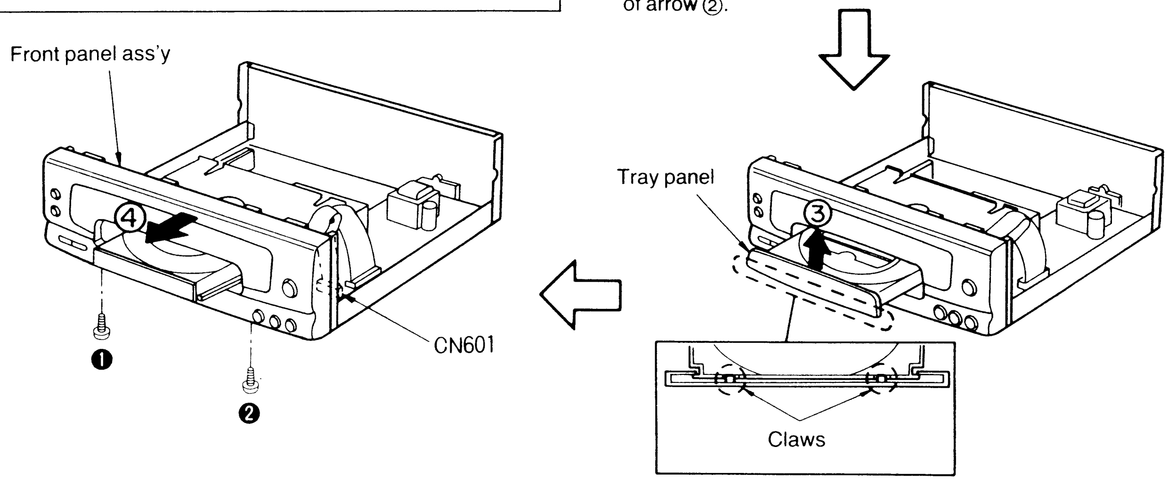
Ref. No. 2

Removal of the Front Panel Ass'y

Procedure 1→2


Lever
①
Traverse unit
②
Disc tray

1. Push the lever in the direction of arrow ① until the traverse unit goes down and then push the disc tray in the direction of arrow ②.

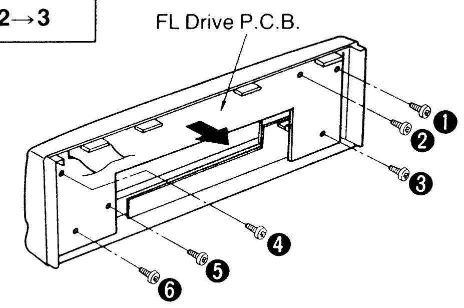

Front panel ass'y
④
❶
❷
CN601
Tray panel
③
Claws

2. Remove the 2 claws and then remove the tray panel in the direction of arrow ③.
3. Remove the 1 connector (CN601).
4. Remove the 2 screws (❶, ❷).
5. Remove the front panel ass'y in the direction of arrow ④.

Ref. No. 3

Removal of the FL Drive P.C.B.

Procedure 1→2→3

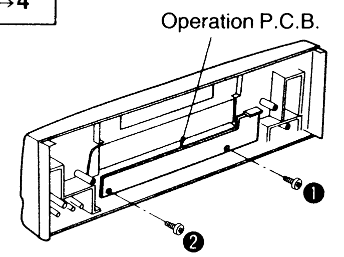

FL Drive P.C.B.
❶
❷
❸
❹
❺
❻

1. Remove the 6 screws (❶~❻).
2. Remove the FL drive P.C.B. in the direction of arrow.

Ref. No. 4

Removal of the Operation P.C.B.

Procedure 1→2→3→4

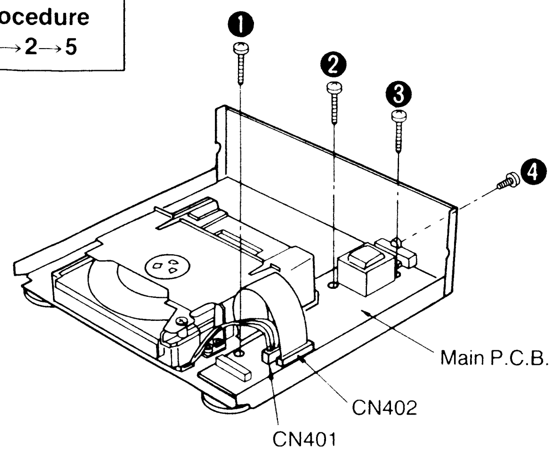

Operation P.C.B.
❶
❷

- Remove the 2 screws (❶, ❷).

Ref. No. 5

Removal of the Main P.C.B.

Procedure 1→2→5

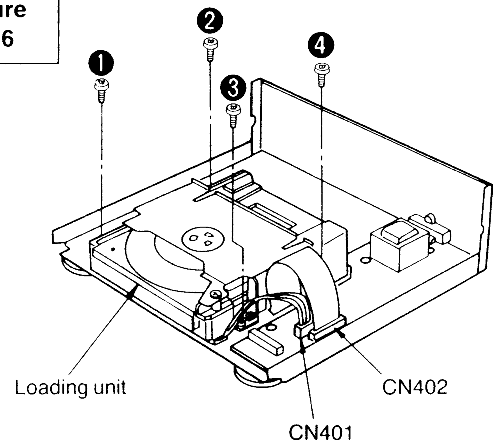

❶
❷
❸
❹
Main P.C.B.
CN402
CN401

1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 6

Removal of the Loading Unit

Procedure 1→2→6

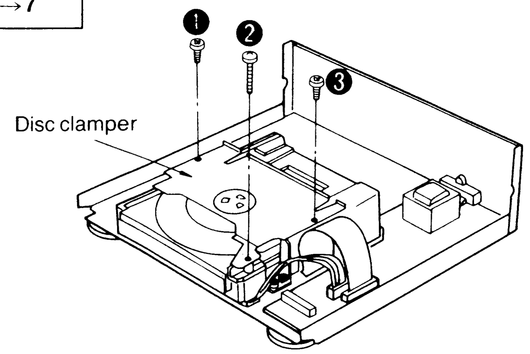

❶
❷
❸
❹
Loading unit
CN402
CN401

1. Remove the 2 connectors (CN401, CN402).
2. Remove the 4 screws (❶~❹).

Ref. No. 7

Removal of the Disc Clamper

Procedure 1→2→7

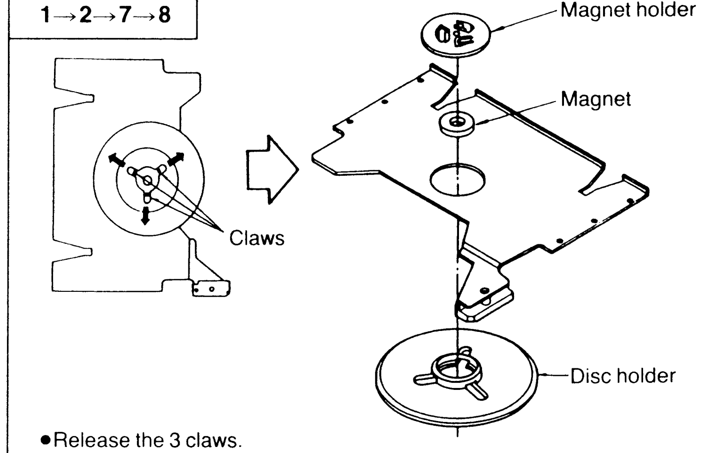

❶
❷
❸
Disc clamper

- Remove the 3 screws (❶~❸).

Ref. No. 8

Removal of the Magnet Holder, Magnet and Disc Holder

Procedure 1→2→7→8

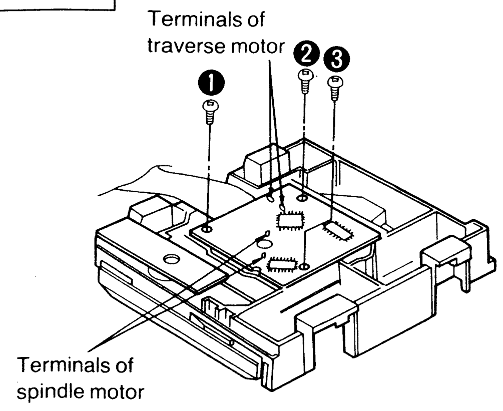

Magnet holder
Magnet
Claws
Disc holder

- Release the 3 claws.

Ref. No. 9

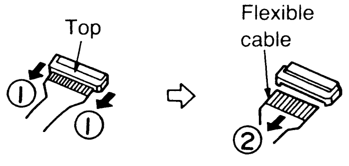
Removal of the Servo P.C.B.

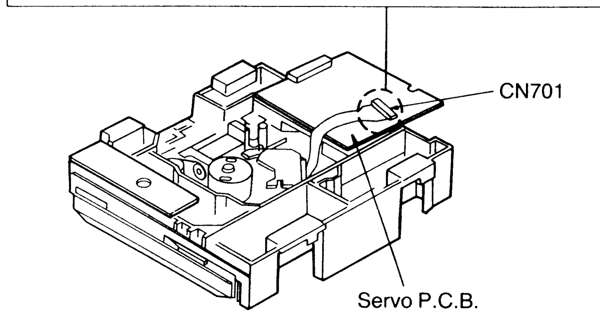
Procedure 1→2→6→9


Terminals of traverse motor
❶
❷
❸
Terminals of spindle motor

1. Remove the 2 screws (❶~❸).
2. Unsolder the 2 terminals of spindle motor.
3. Unsolder the 2 terminals of traverse motor.

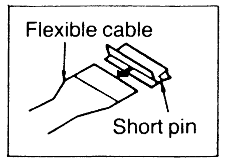
• Removal of the flexible cable
Push the top of the connector in the direction of the arrow ①, and then Pull Out the flexible cable in the direction of the arrow ②.


Top
①
①
Flexible cable
②


CN701
Servo P.C.B.

4. Remove the flexible cable (CN701).

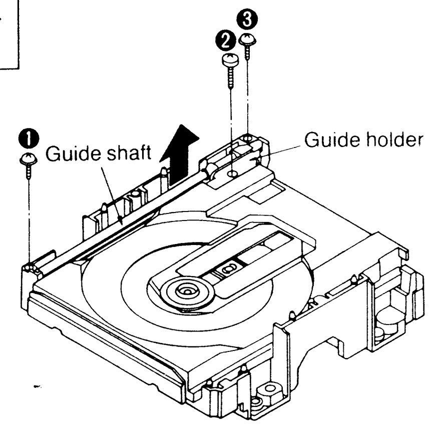
Note:
Insert a short pin into the traverse unit flexible cable.


Flexible cable
Short pin

Ref. No. 10

Removal of the Guide Shaft and Guide Holder

Procedure
1→2→6→7→10

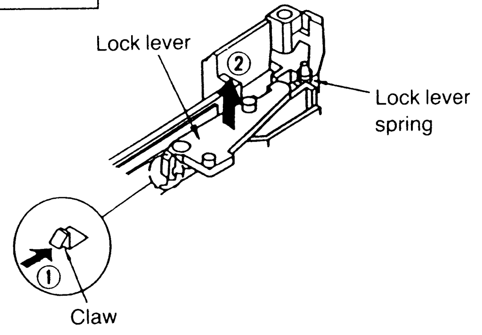

❸
❷
❶
Guide shaft
Guide holder

1. Remove the 3 screws (❶~❸).
2. Remove the guide shaft and guide holder in the direction of arrow.

Ref. No. 12

Removal of the Lock Lever

Procedure
1→2→6→7→10→11→12

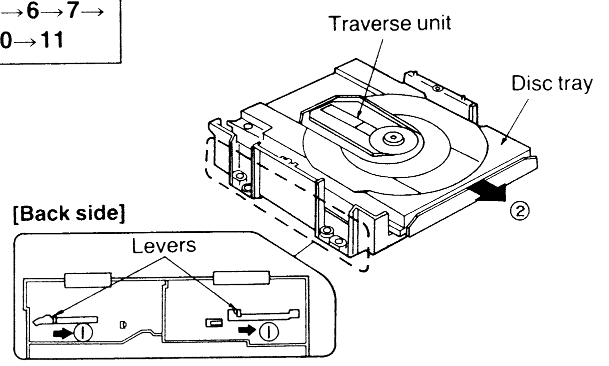

Lock lever
②
Lock lever spring
①
Claw

1. Remove the lock lever spring.
2. Release the claw in the direction of the arrow ①, and then remove the lock lever in the direction of arrow ②.

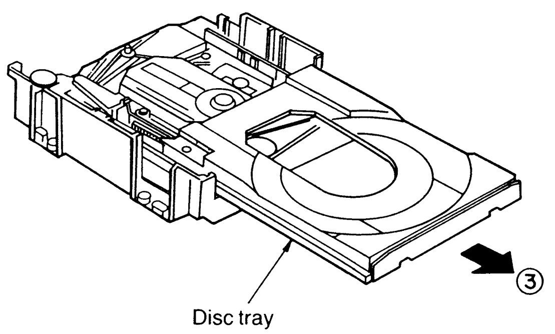
Ref. No. 11

Removal of the Disc Tray

Procedure
1→2→6→7→10→11


Traverse unit
Disc tray
②
[Back side]
Levers
①
①

1. Push the 2 levers in the direction of arrow ① until the traverse unit goes down and the disc tray slightly in the direction of arrow ②.

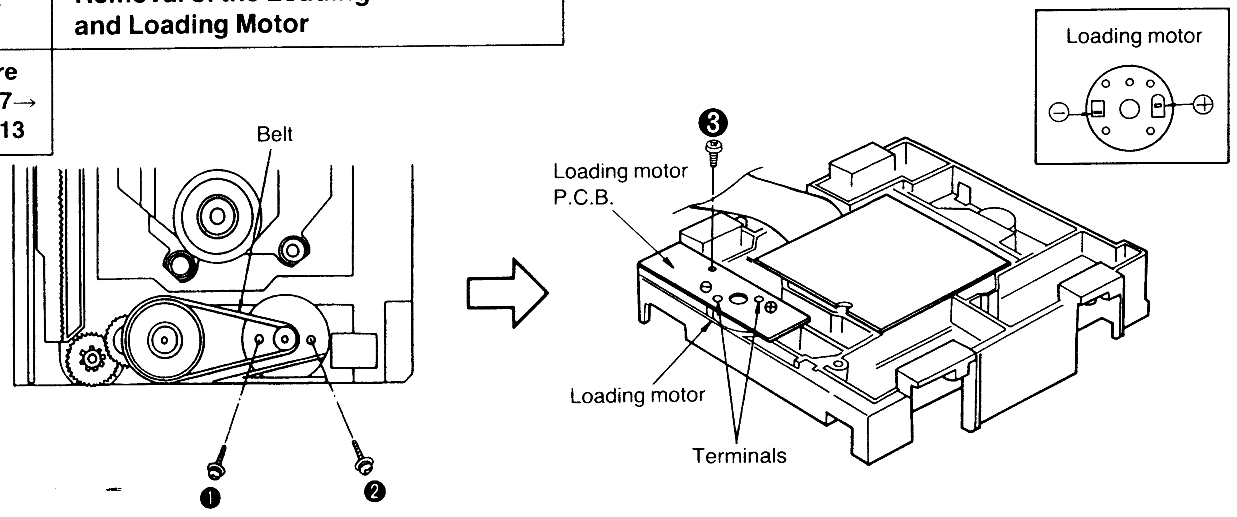


2. Remove the disc tray in the direction of arrow. ③.

Ref. No. 13

Removal of the Loading Motor P.C.B. and Loading Motor

Procedure
1→2→6→7→10→11→13

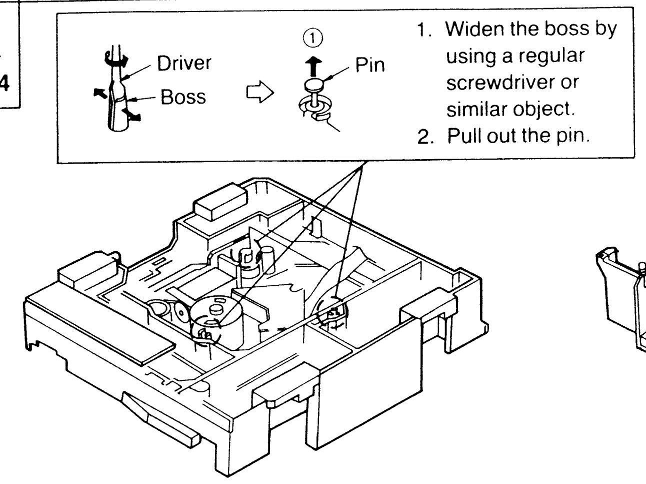

Belt
❶
❷
❸
Loading motor P.C.B.
Loading motor
Terminals
Loading motor
⊖
⊕

1. Remove the belt.
2. Remove the 2 screws (❶, ❷).
3. Remove the 1 screw (❸).
4. Unsolder the 2 terminals of loading motor.

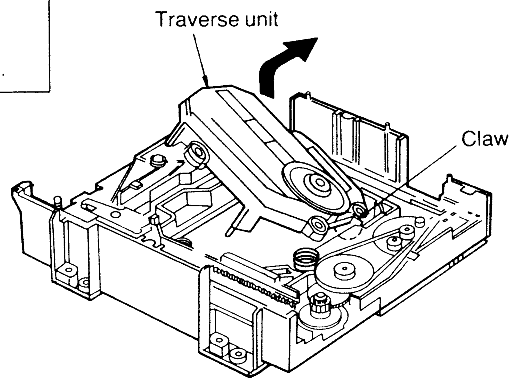
Ref. No. 14

Removal of the Traverse Unit

Procedure
1→2→6→7→9→10→11→14


Driver
Boss
①
Pin

1. Widen the boss by using a regular screwdriver or similar object.
2. Pull out the pin.

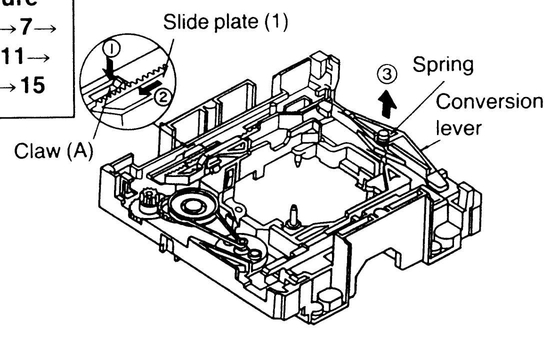

Traverse unit
Claw

1. Remove the 3 pins in the direction of arrow ①.
2. Release the claw and then remove the traverse unit in the direction of arrow.

Ref. No. 15

Removal of the Conversion Lever

Procedure
1→2→6→7→9→10→11→12→14→15

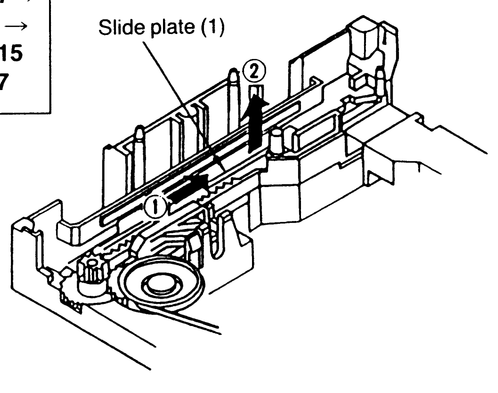

Slide plate (1)
①
②
Claw (A)
③ Spring
Conversion lever

1. Remove the spring.
2. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.
3. Remove the conversion lever in the direction of arrow ③.

Ref. No. 17

Removal of the Slide Plate (1)

Procedure
1→2→6→7→9→10→11→12→14→15→16→17

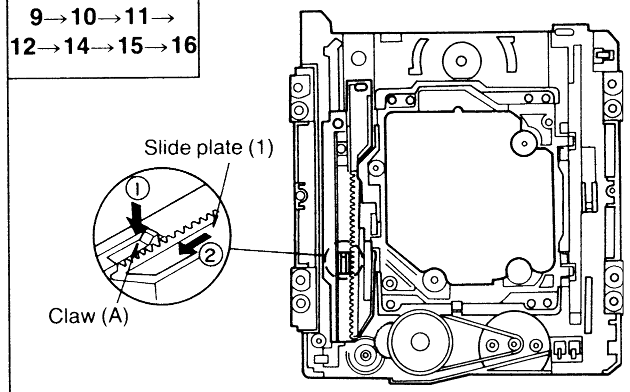

Slide plate (1)
②
①

- Move the slide plate (1) in the direction of the arrow ①, and remove the slide plate (1) in the direction of the arrow ②.

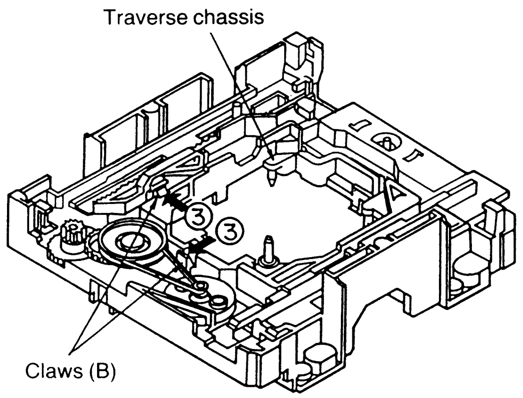
Ref. No. 16

Removal of the Traverse Chassis

Procedure
1→2→6→7→9→10→11→12→14→15→16


Slide plate (1)
①
②
Claw (A)

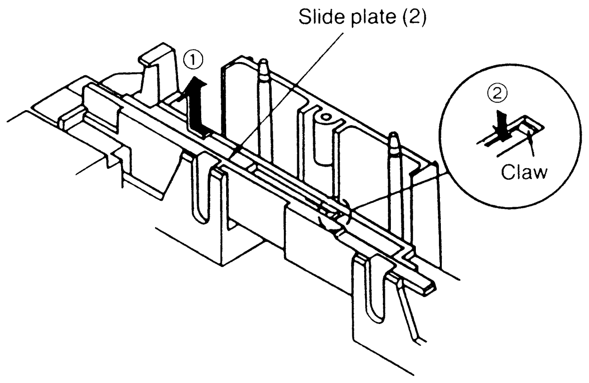
1. Push the claw (A) in the direction of arrow ①, and then move the slide plate (1) in the direction of arrow ②.


Traverse chassis
③
③
Claws (B)

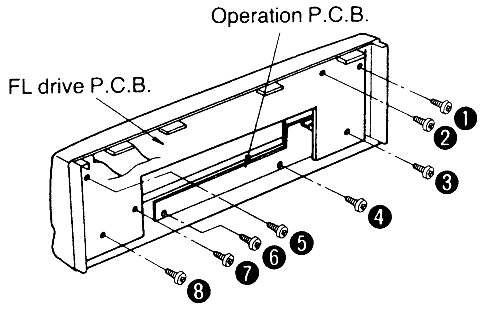
2. Push 2 claws (B) in the direction of arrow ③, and then remove the traverse chassis.

Ref. No. 18	Removal of the Slide Plate (2)
Procedure 1→2→6→7→ 9→10→11→ 12→14→15→ 16→18	

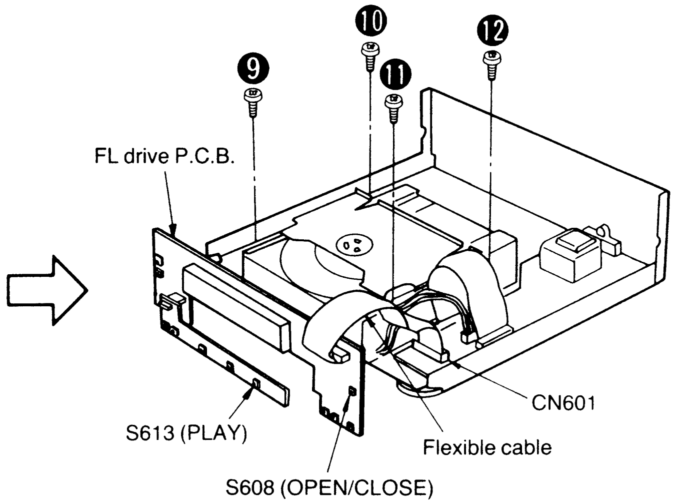
- Push the claw in the direction of the arrow ①, and remove the slide plate (2) in the direction of the arrow ②.


Slide plate (2)
①
②
Claw

Ref. No. 19	How to check the FL Drive P.C.B. and Servo P.C.B.
Procedure 1→2→19	

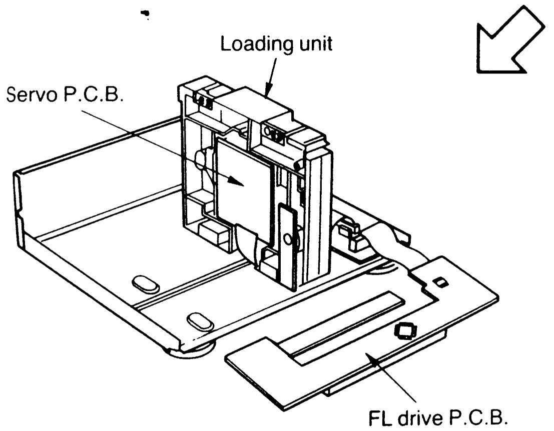

Operation P.C.B.
FL drive P.C.B.
❶
❷
❸
❹
❺
❻
❼
❽

1. Remove the 8 screws (❶~❽).
2. Remove the FL drive P.C.B. and operation P.C.B.


❾
❿
⓫
⓬
FL drive P.C.B.
CN601
S613 (PLAY)
Flexible cable
S608 (OPEN/CLOSE)

3. Remove the 4 screws (❾~⓬).
4. Connect the flexible cable to connector (CN601).

Note:
Make sure not to damage the flexible cable.


Loading unit
Servo P.C.B.
FL drive P.C.B.

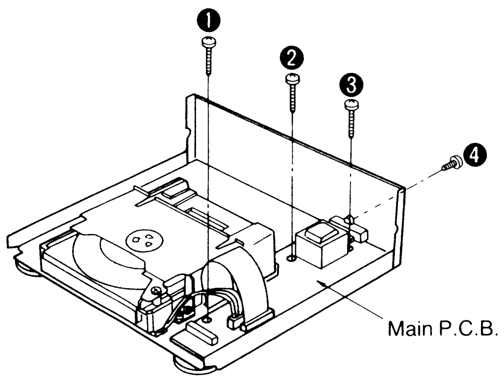
5. Place the loading unit sideways as shown above.
6. When checking the solder surface of the operation P.C.B. and servo P.C.B., do as shown above.

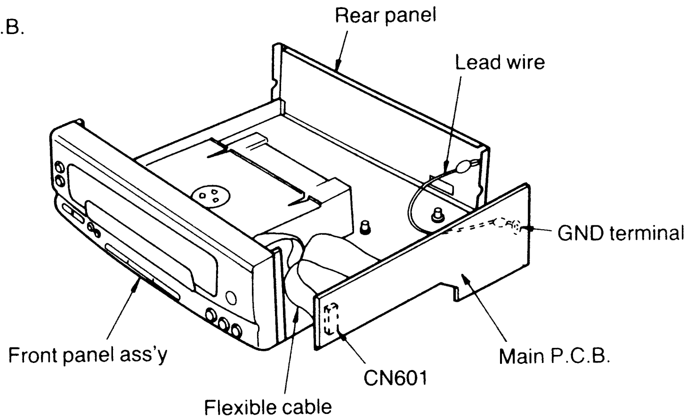
To play a disc

1. Push the S608 (OPEN/CLOSE) switch so that the loading unit comes up.
2. Playing the test disc on the tray. Then, push the S608 (OPEN/CLOSE) switch to set the test disc.
3. Push the S613 (PLAY) switch to start the disc play.

Ref. No. 20	How to check the Main P.C.B.
Procedure 1→2→20	

- When checking the soldered surfaces of main P.C.B. and replacing the parts, do as show.

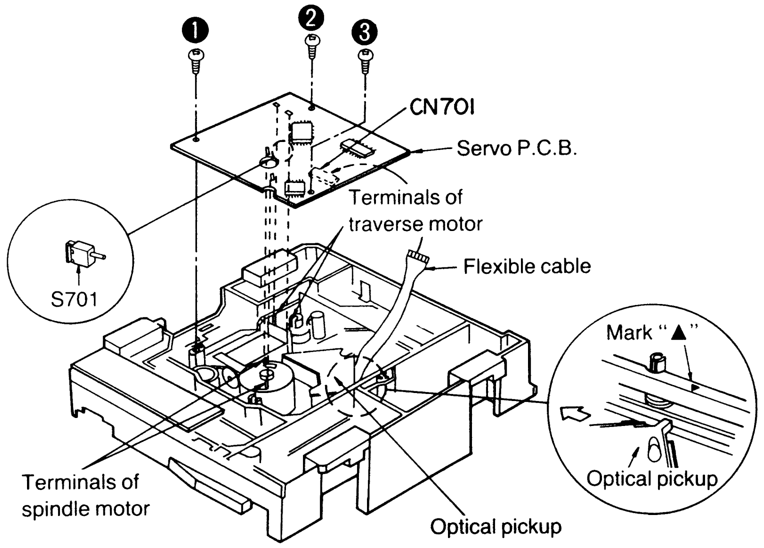

❶
❷
❸
❹
Main P.C.B.


Rear panel
Lead wire
GND terminal
Front panel ass'y
Main P.C.B.
CN601
Flexible cable

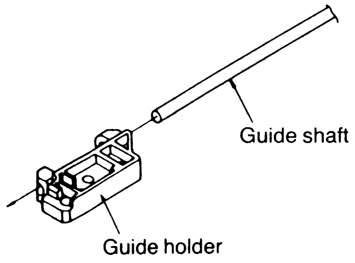
1. Remove the 4 screws (❶~❹).
2. Remove the main P.C.B. and then stand the main P.C.B. at the side of unit.
3. Reinstall the front panel ass'y to the unit and then connect the flexible cable (CN601).
4. Connect the GND terminal to the rear panel by the lead wire.

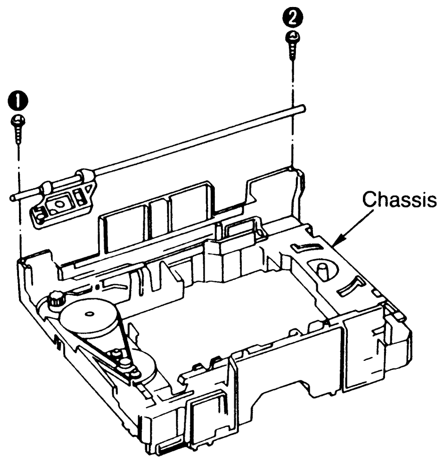
■ INSTALLING SERVO P.C.B.

1. Before installing the servo P.C.B., move the optical pickup toward the outer edge from the mark "▲". Otherwise, the rest switch (S701) mounted on the servo P.C.B. may be damaged.
2. Connect the flexible cable to the connector (CN701).
3. Install the servo P.C.B. in the traverse unit with the three screws (❶~❸).
4. Solder the two terminals of the traverse motor and the two terminals of the spindle motor.


❶
❷
❸
CN701
Servo P.C.B.
Terminals of traverse motor
Flexible cable
S701
Mark "▲"
Optical pickup
Terminals of spindle motor
Optical pickup

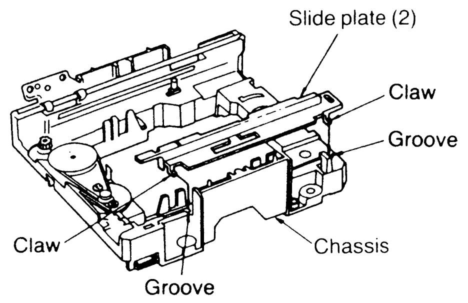
■ INSTALLING OF GUIDE SHAFT


Guide shaft
Guide holder

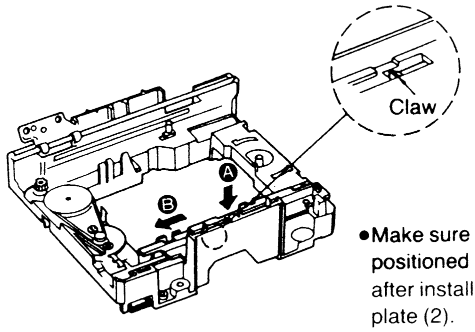


1. Insert the guide shaft into the guide holder.
2. Install the guide shaft on the chassis with the 2 screws (❶, ❷).

■ CD UNIT ASSEMBLY

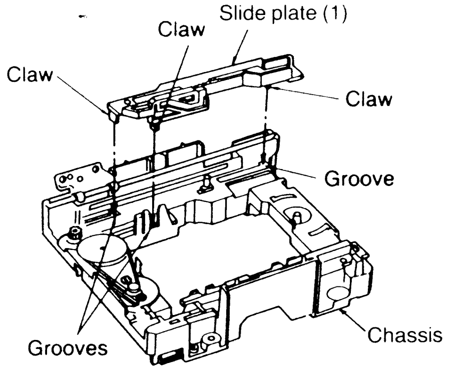

Slide plate (2)
Claw
Groove
Claw
Chassis
Groove

1. Install Slide plate (2) on the chassis by fitting the claws of Slide plate (2) in the two grooves of the chassis.

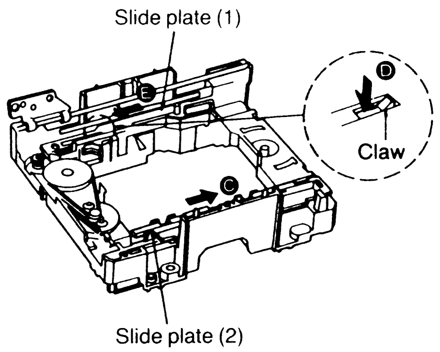


•Make sure that the claw is positioned as shown above after installing Slide plate (2).

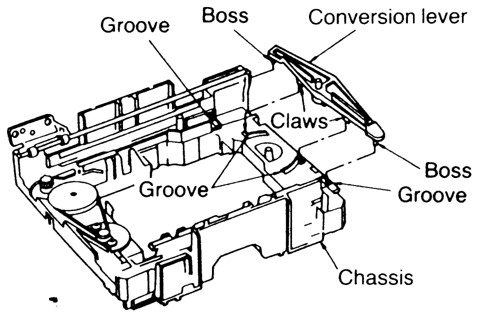
2. Slide plate (2) in the direction of arrow Ⓑ while keeping it held down lightly in the direction of arrow Ⓐ.


Slide plate (1)
Claw
Claw
Claw
Groove
Grooves
Chassis

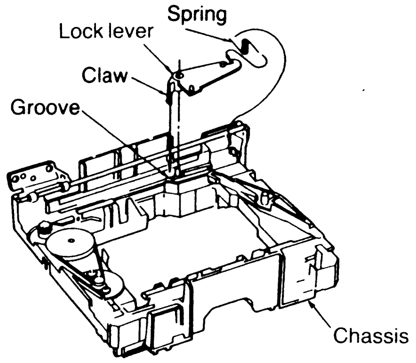
3. Install Slide plate (1) on the chassis by fitting the claws of Slide plate (1) in the three grooves of the chassis as shown above.


Slide plate (1)
Ⓔ
Ⓓ
Claw
Ⓒ
Slide plate (2)

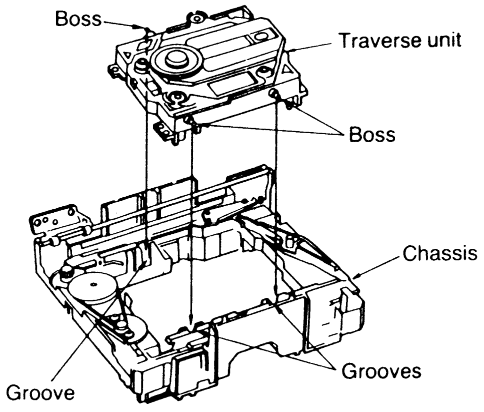
4. Slide plate (1) fully in the direction of arrow Ⓒ.
5. **Keep holding down the claw in the direction of arrow Ⓓ and slide plate (1) in the direction of arrow Ⓔ to stop. (Slide but very little.)**


Groove
Boss
Conversion lever
Claws
Boss
Groove
Groove
Chassis

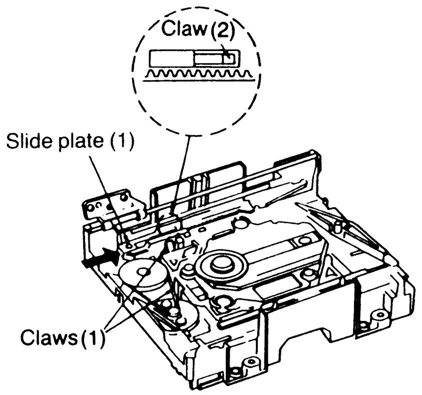
6. Install Conversion lever on the chassis by fitting the two claws of Conversion lever in the two grooves of the chassis and the two bosses in the two grooves as shown above.


Spring
Lock lever
Claw
Groove
Chassis

7. Install Lock lever on the chassis by fitting the claw of Lock lever in the groove of the chassis.
8. Install the spring on Lock lever and the chassis.


Boss
Traverse unit
Boss
Chassis
Groove
Grooves

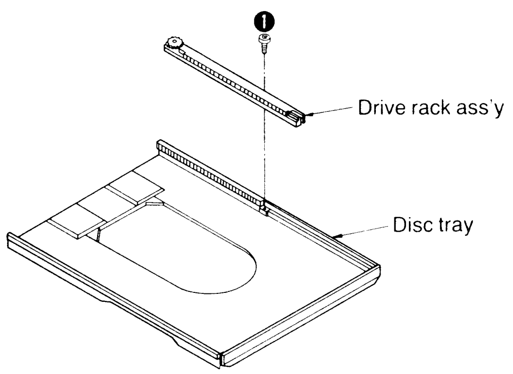
9. Install the traverse unit on the chassis by fitting the three bosses of the traverse unit in the three grooves of the chassis.


Claw (2)
Slide plate (1)
Claws (1)

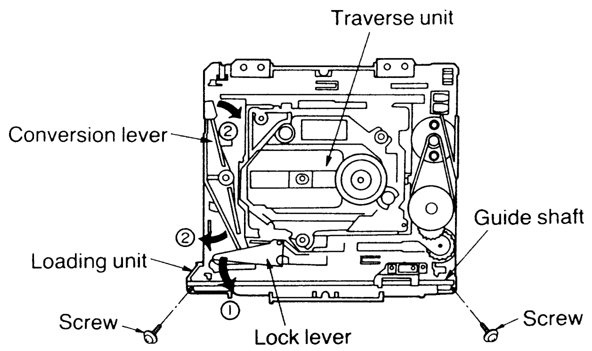
10. **Make sure that the traverse unit is engaged with the two claws (1).**
11. **Slide plate (1) in the direction of the arrow. Be sure to check if claw (2) is set as shown above. [Slide plate (1) but very little.]**

■ INSTALLING DISC TRAY UNIT

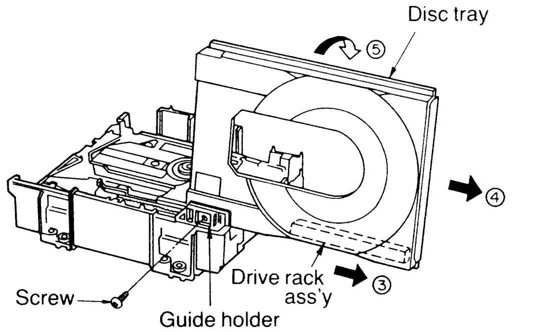
- Install the drive rack ass'y on the disc tray with the screw ❶.


❶
Drive rack ass'y
Disc tray

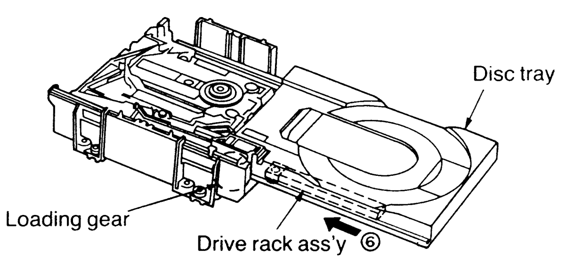
■ INSTALLING DISC TRAY


Traverse unit
Conversion lever
②
Guide shaft
Loading unit
②
Screw
①
Lock lever
Screw

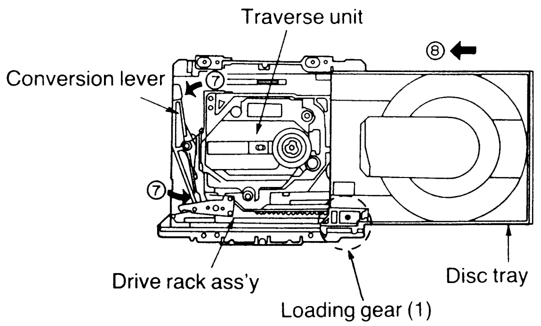
1. Move Lock lever in the direction of arrow ① and Conversion lever in the direction of arrow ②. (The traverse unit rises.)
2. Install the guide shaft on the loading unit.


Disc tray
⑤
④
Screw
Drive rack ass'y
③
Guide holder

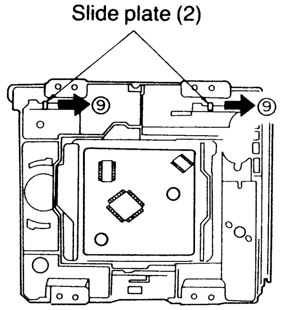
3. Install the disc tray on the guide holder with the screw as shown above.
4. Slide the drive rack ass'y fully in the direction of arrow ③.
5. Slide the disc tray fully in the direction of arrow ④.
6. Lay the disc tray down in the direction of arrow ⑤.

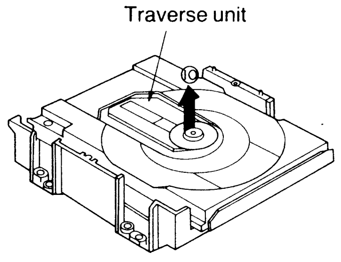

Disc tray
Loading gear
Drive rack ass'y
⑥

7. Slide the drive rack ass'y in the direction of arrow ⑥.
8. Hold the disc tray and slide the under tray fully in the direction of arrow ⑥. (Slide but very little and the loading gear is engaged with drive rack ass'y.)


Traverse unit
⑧
Conversion lever
⑦
⑦
Drive rack ass'y
Disc tray
Loading gear (1)

9. Slide the Conversion lever fully in the direction of arrow ⑦, and the drive rack ass'y engages with the Loading gear (1). (The traverse unit is lowered.)
10. Slide the disc tray in the direction of arrow ⑧.

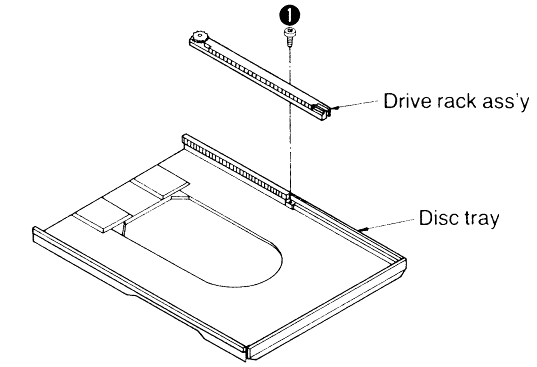

Slide plate (2)
⑨
⑨


Traverse unit
⑩

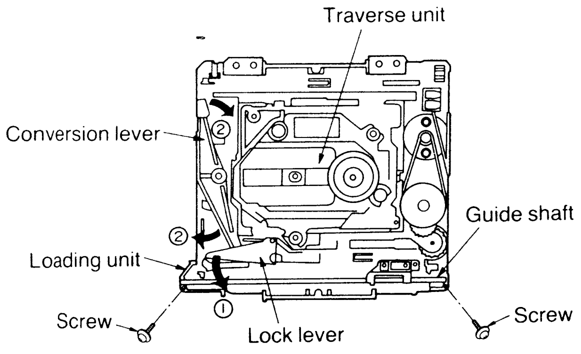
11. Slide the Slide plate (2) in the direction of arrow ⑨ and check if the traverse unit rises in the direction of arrow ⑩.

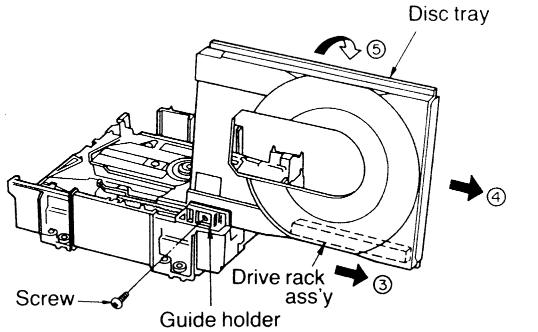
■ INSTALLING DISC TRAY UNIT

- Install the drive rack ass'y on the disc tray with the screw ❶.

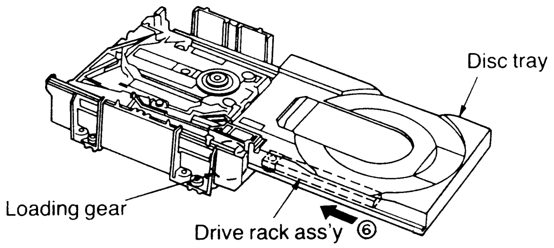

❶
Drive rack ass'y
Disc tray

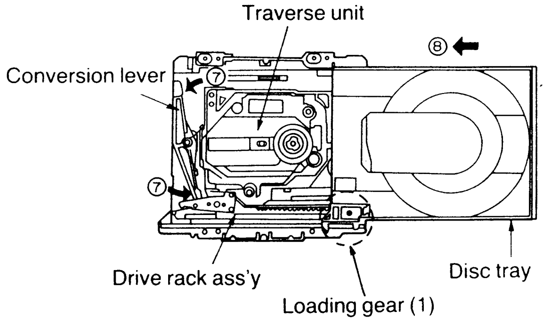
■ INSTALLING DISC TRAY


Traverse unit
Conversion lever
②
Guide shaft
②
Loading unit
①
Screw
Lock lever
Screw

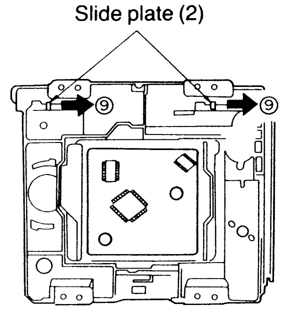

Disc tray
⑤
④
Screw
Drive rack ass'y
③
Guide holder

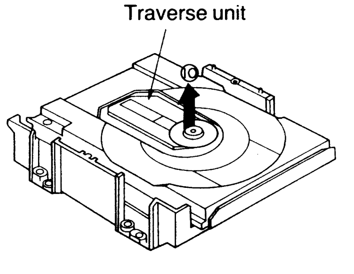
1. Move Lock lever in the direction of arrow ① and Conversion lever in the direction of arrow ②. (The traverse unit rises.)
2. Install the guide shaft on the loading unit.
3. Install the disc tray on the guide holder with the screw as shown above.
4. Slide the drive rack ass'y fully in the direction of arrow ③.
5. Slide the disc tray fully in the direction of arrow ④.
6. Lay the disc tray down in the direction of arrow ⑤.


Disc tray
Loading gear
Drive rack ass'y
⑥


Traverse unit
⑧
Conversion lever
⑦
⑦
Drive rack ass'y
Disc tray
Loading gear (1)

7. Slide the drive rack ass'y in the direction of arrow ⑥.
8. Hold the disc tray and slide the under tray fully in the direction of arrow ⑥. (Slide but very little and the loading gear is engaged with drive rack ass'y.)
9. Slide the Conversion lever fully in the direction of arrow ⑦, and the drive rack ass'y engages with the Loading gear (1). (The traverse unit is lowered.)
10. Slide the disc tray in the direction of arrow ⑧.

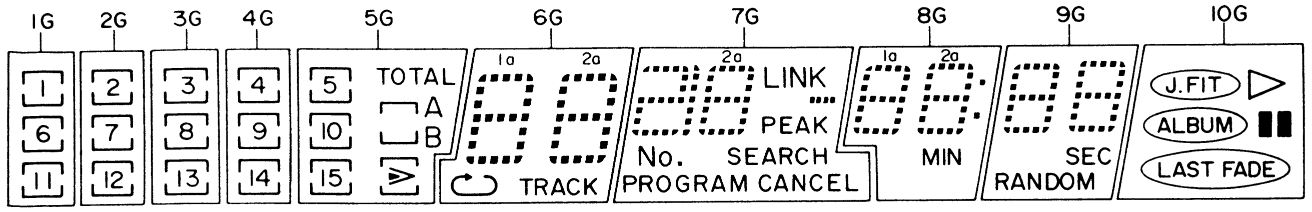

Slide plate (2)
⑨
⑨

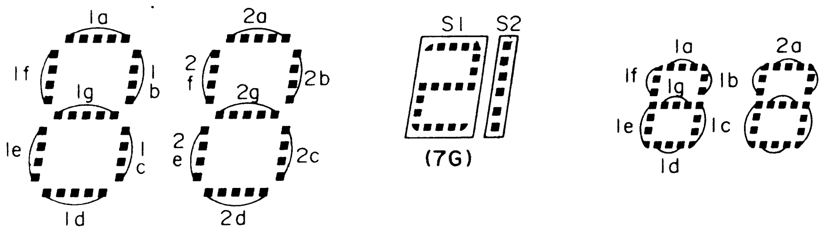

Traverse unit
⑩

11. Slide the Slide plate (2) in the direction of arrow ⑨ and check if the traverse unit rises in the direction of arrow ⑩.

■ DESCRIPTION OF FL PANEL (FL601: RSL0127-F)

●Grid assigment


1G
2G
3G
4G
5G
6G
7G
8G
9G
10G
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
TOTAL
A
B
TRACK
1a
2a
2a
LINK
PEAK
No.
SEARCH
PROGRAM CANCEL
1a
2a
MIN
SEC
RANDOM
J.FIT
ALBUM
LAST FADE


1a
1f
1g
1b
1e
1c
1d
2a
2f
2g
2b
2e
2c
2d
S1
S2
(7G)
1a
2a
1f
1g
1b
1e
1c
1d

●Pin connection

Pin No.	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Terminal Name	P13	P12	P11	P10	P9	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	P8	P7	P6	P5	P4	P3	P2	P1	NP	NP	F1	F1

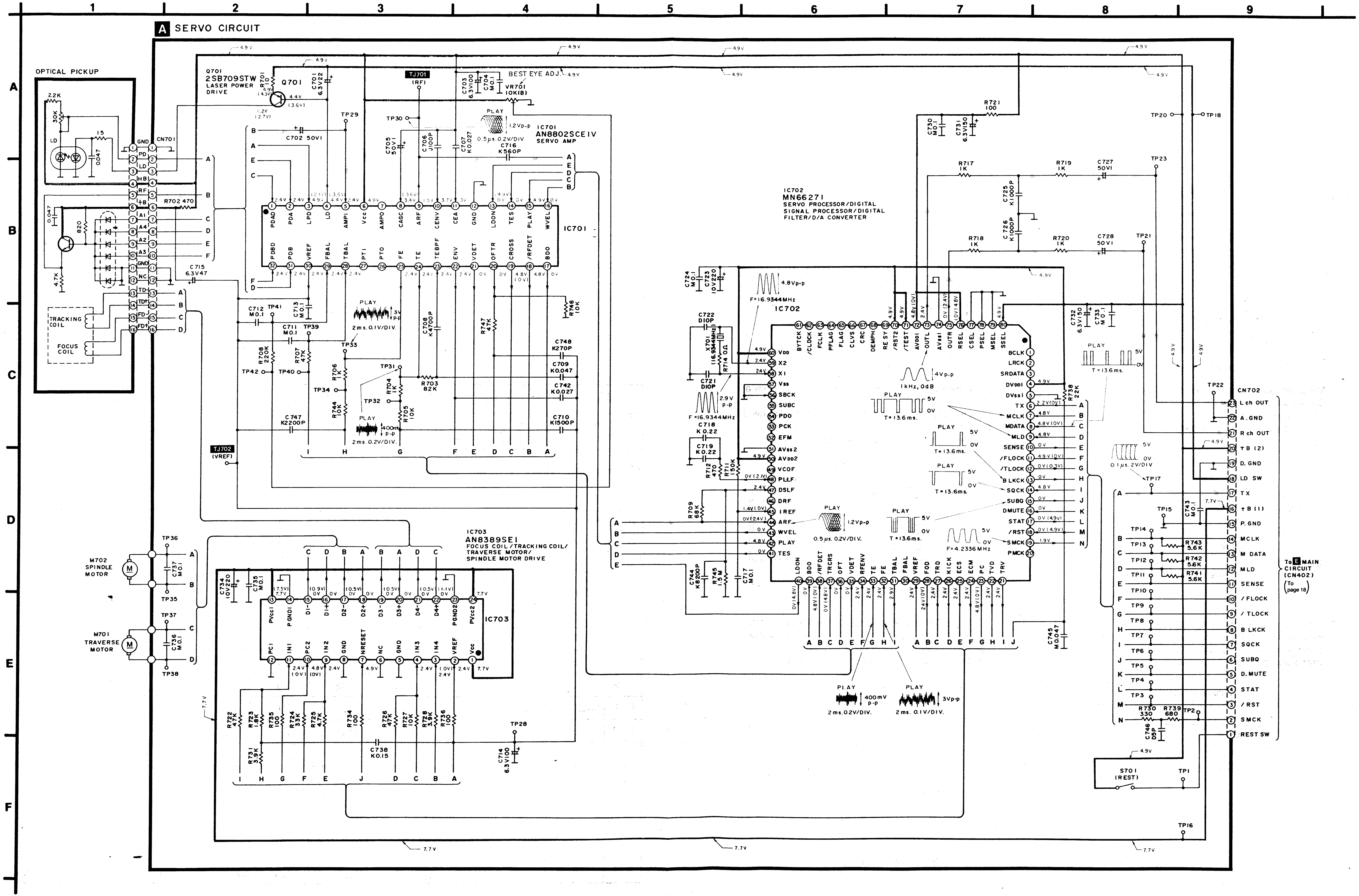
Pin No.	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36
Terminal Name	F2	F2	NP	NP	NC	NC	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	P16	P15	P14

Notes:
F1, F2 . . . . . . Filament
NP . . . . No pin
NX, NC . . . . No connection
1G~10G . . Grid

●Anode connection

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P 1	┌─┐(1)	┌─┐(2)	┌─┐(3)	┌─┐(4)	┌─┐(5)	1a	S1	1a	1a	–
P 2	1	2	3	4	5	1f	S2	1f	1f	–
P 3	└─┘(1)	└─┘(2)	└─┘(3)	└─┘(4)	└─┘(5)	1b	LINK	1b	1b	–
P 4	┌─┐(6)	┌─┐(7)	┌─┐(8)	┌─┐(9)	┌─┐(10)	1g	▭	1g	1g	–
P 5	6	7	8	9	10	1e	No.	1e	1e	–
P 6	└─┘(6)	└─┘(7)	└─┘(8)	└─┘(9)	└─┘(10)	1c	PEAK	1c	1c	–
P 7	┌─┐(11)	┌─┐(12)	┌─┐(13)	┌─┐(14)	┌─┐(15)	1d	SEARCH	1d	1d	–
P 8	11	12	13	14	15	2a	2a	2a	2a	–
P 9	└─┘(11)	└─┘(12)	└─┘(13)	└─┘(14)	└─┘(15)	2f	2f	2f	2f	–
P10	–	–	–	–	TOTAL	2b	2b	2b	2b	–
P11	–	–	–	–	┌─┐(A)	2g	2g	2g	2g	–
P12	–	–	–	–	A B	2e	2e	2e	2e	▷
P13	–	–	–	–	└─┘(B)	2c	2c	2c	2c	▯▯
P14	–	–	–	–	┌─┐(⋙)	2d	2d	2d	2d	ALBUM
P15	–	–	–	–	⋙	⟲	PROGRAM	:	RANDOM	J.FIT
P16	–	–	–	–	└─┘(⋙)	TRACK	CANCEL	MIN	SEC	LAST FADE

■ SCHEMATIC DIAGRAM •OPTICAL PICKUP AND SERVO CIRCUIT (Parts list on pages 35~38.)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
A SERVO CIRCUIT
OPTICAL PICKUP
2.2K
30K
LD
15
0.047
820
4.7K
TRACKING COIL
FOCUS COIL
CN701
R702 470
C715 6.3V47
Q701 2SB709STW LASER POWER DRIVE
R701 10
C701 6.3V22
TJ701 (RF)
C703 6.3V100
C704 M0.1
BEST EYE ADJ.
VR701 10K(B)
TP29
TP30
C702 50V1
C705 50V1
C706 J100P
C707 K0.027
PLAY
1.2Vp-p
0.5μs.0.2V/DIV
IC701 AN8802SCE1V SERVO AMP
C716 K560P
IC701
PDAD PDA LPD LD AMPI Vcc AMPO CAGC ARF CENV CEA GND LDON TES PLAY WVEL
PDBD PDB VREF FBAL TBAL PTI PTO FE TE TEBPF ENV VDET OFTR CROSS /RFDET BDO
C712 M0.1
TP41
C713 M0.1
C711 M0.1
TP39
2ms.0.1V/DIV.
TP33
C708 K4700P
R747 47K
R746 10K
C748 K270P
C709 K0.047
C742 K0.027
C710 K1500P
R708 220K
R707 47K
TP42
TP40
R706 1K
TP31
R704 1K
R703 82K
TP34
TP32
R744 10K
R705 10K
C747 K2200P
400mV p-p
2ms.0.2V/DIV.
TJ702 (VREF)
IC702 MN66271 SERVO PROCESSOR/DIGITAL SIGNAL PROCESSOR/DIGITAL FILTER/D/A CONVERTER
4.8Vp-p
F=16.9344MHz
IC702
C724 M0.1
C723 10V220
C722 D10P
X701 (16.9344MHz)
R714 0Ω
C721 D10P
2.9V p-p
F=16.9344MHz
C718 K0.22
C719 K0.22
R712 470
R711 150K
R709 68K
BYTCK /CLDCK FCLK PFLAG FLAG CLVS CRC DEMPH RESY /RST2 /TEST AVDD1 OUTL AVss1 OUTR RSEL CSEL PSEL MSEL SSEL
VDD X2 X1 Vss SBCK SUBC PDO PCK EFM AVss2 AVDD2 VCOF PLLF DSLF DRF IREF ARF WVEL PLAY TES
BCLK LRCK SRDATA DVDD1 DVss1 TX MCLK MDATA MLD SENSE /FLOCK /TLOCK BLKCK SQCK SUBQ DMUTE STAT /RST SMCK PMCK
LDON BDO /RFDET TRCRS OFT VDET RFENV TE FE TBAL FBAL VREF FOD TRD KICK ECS ECM PC TVD TRV
4Vp-p
1kHz, 0dB
PLAY
T=13.6ms.
1.2Vp-p
0.5μs.0.2V/DIV.
F=4.2336MHz
C744 K8200P
R745 1.5M
C717 M0.1
C745 M0.047
PLAY 400mV p-p 2ms.0.2V/DIV.
PLAY 3Vp-p 2ms.0.1V/DIV.
R721 100
C730 M0.1
C731 6.3V150
R717 1K
R719 1K
C727 50V1
C725 K1000P
C726 K1000P
R718 1K
R720 1K
C728 50V1
TP20
TP18
TP23
TP21
C732 6.3V150
C733 M0.1
R738 22K
T=13.6ms.
0.1μs.2V/DIV
TP17
TP22
CN702
L ch OUT
A.GND
R ch OUT
+B (2)
D.GND
LD SW
TX
+B (1)
P.GND
MCLK
M DATA
MLD
SENSE
/FLOCK
/TLOCK
BLKCK
SQCK
SUBQ
D.MUTE
STAT
/RST
SMCK
REST SW
To E MAIN CIRCUIT (CN402) (To page 18)
TP15
C743 M0.1
TP14
TP13
R743 5.6K
TP12
R742 5.6K
TP11
R741 5.6K
TP10
TP9
TP8
TP7
TP6
TP5
TP4
TP3
R730 330
R739 680
TP2
C746 D5P
S701 (REST)
TP1
TP16
TP36
M702 SPINDLE MOTOR
C737 M0.1
TP35
TP37
M701 TRAVERSE MOTOR
C736 M0.1
TP38
IC703 AN8389SE1 FOCUS COIL/TRACKING COIL/ TRAVERSE MOTOR/ SPINDLE MOTOR DRIVE
C734 10V220
C735 M0.1
PVcc1 PGND1 D1- D1+ D2- D2+ D3- D3+ D4- D4+ PGND2 PVcc2
PC1 IN1 PC2 IN2 GND NRESET NC GND IN3 IN4 VREF Vcc
IC703
R722 47K
R723 1.8K
R735 100
R724 33K
R725 4.7K
R734 100
R726 47K
R727 10K
R728 3.9K
R736 100
R731 3.9K
C738 K0.15
TP28
C714 6.3V100
4.9V
7.7V

Notes:
•S601
•S602
•S603
•S604
•S605
•S606
•S607
•S608
•S609
•S610
•S611
•S612
•S613
•S701
•S790
•S791
•Indicated
chassis t
Therefor

N

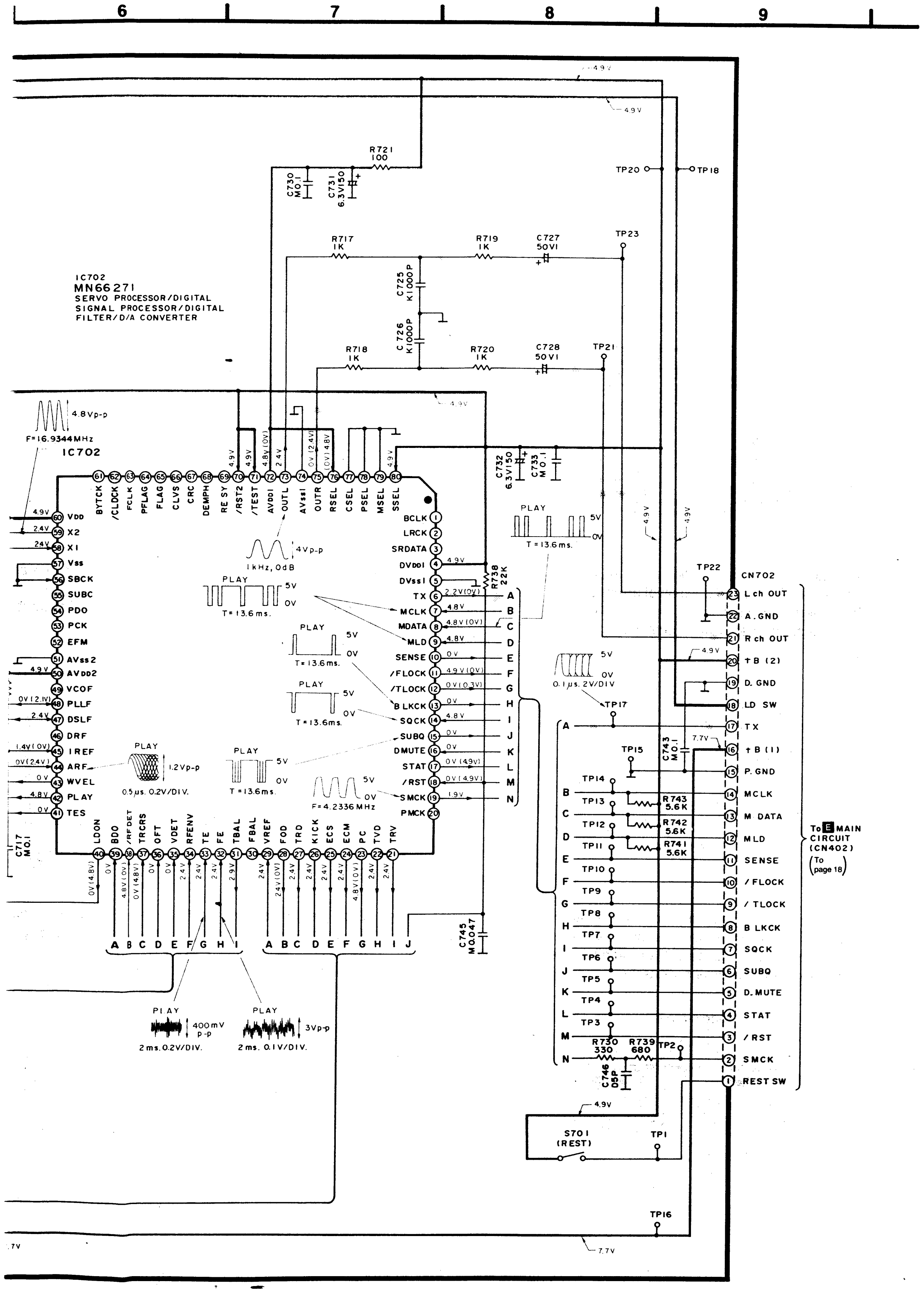
•Importar
Compon
Furtherm
are used

Caution!
IC and LS
Secondary
•Cover th
•Ground t
•Put a co
•Do not to

•This sch

•The supp

Ref. No
IC1
IC801


6
7
8
9
IC702
MN66271
SERVO PROCESSOR/DIGITAL
SIGNAL PROCESSOR/DIGITAL
FILTER/D/A CONVERTER
R721 100
C730 M0.1
C731 6.3V150
R717 1K
R719 1K
C727 50V1
C725 K1000P
C726 K1000P
R718 1K
R720 1K
C728 50V1
TP20
TP18
TP23
TP21
TP22
4.8Vp-p
F=16.9344MHz
IC702
C732 6.3V150
C733 M0.1
R738 22K
BYTCK
/CLDCK
FCLK
PFLAG
FLAG
CLVS
CRC
DEMPH
RESY
/RST2
/TEST
AVDD1
OUTL
AVss1
OUTR
RSEL
CSEL
PSEL
MSEL
SSEL
VDD
X2
X1
Vss
SBCK
SUBC
PDO
PCK
EFM
AVss2
AVDD2
VCOF
PLLF
DSLF
DRF
IREF
ARF
WVEL
PLAY
TES
BCLK
LRCK
SRDATA
DVDD1
DVss1
TX
MCLK
MDATA
MLD
SENSE
/FLOCK
/TLOCK
BLKCK
SQCK
SUBQ
DMUTE
STAT
/RST
SMCK
PMCK
LDON
BDO
/RFDET
TRCRS
OFT
VDET
RFENV
TE
FE
TBAL
FBAL
VREF
FOD
TRD
KICK
ECS
ECM
PC
TVD
TRV
4Vp-p
1kHz, 0dB
PLAY
T=13.6ms.
1.2Vp-p
0.5μs. 0.2V/DIV.
F=4.2336MHz
0.1μs. 2V/DIV
TP17
TP15
C743 M0.1
TP14
TP13
TP12
TP11
TP10
TP9
TP8
TP7
TP6
TP5
TP4
TP3
TP2
R743 5.6K
R742 5.6K
R741 5.6K
R730 330
R739 680
C746 0.5P
C745 M0.047
C717 M0.1
S701 (REST)
TP1
TP16
CN702
L ch OUT
A.GND
R ch OUT
+B (2)
D.GND
LD SW
TX
+B (1)
P.GND
MCLK
M DATA
MLD
SENSE
/FLOCK
/TLOCK
B LKCK
SQCK
SUBQ
D.MUTE
STAT
/RST
SMCK
REST SW
To E MAIN CIRCUIT (CN402)
(To page 18)
PLAY
400mV p-p
2ms. 0.2V/DIV.
3Vp-p
2ms. 0.1V/DIV.
4.9V
7.7V

Notes:

- S601 : R. Skip switch (⏮)
- S602 : F. Skip switch (⏭)
- S603 : Repeat switch (REPEAT)
- S604 : Random play switch (RANDOM)
- S605 : Last fade edit switch (LAST FADE)
- S606 : Sequential CD recording switch (ALBUM)
- S607 : Fit edit switch (J. FIT)
- S608 : Disc tray open/close switch (⏏ OPEN/CLOSE)
- S609 : R. Search switch (◀◀)
- S610 : F. Search switch (▶▶)
- S611 : Stop switch (□)
- S612 : Pause switch (▯▯)
- S613 : Play switch (▷)
- S701 : Rest switch
- S790 : Disc tray close detection switch
- S791 : Disc tray open detection switch
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
  Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

  No mark: CD stop ( ): CD PLAY (1 kHz, L+R, 0 dB)

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution!

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminum coil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

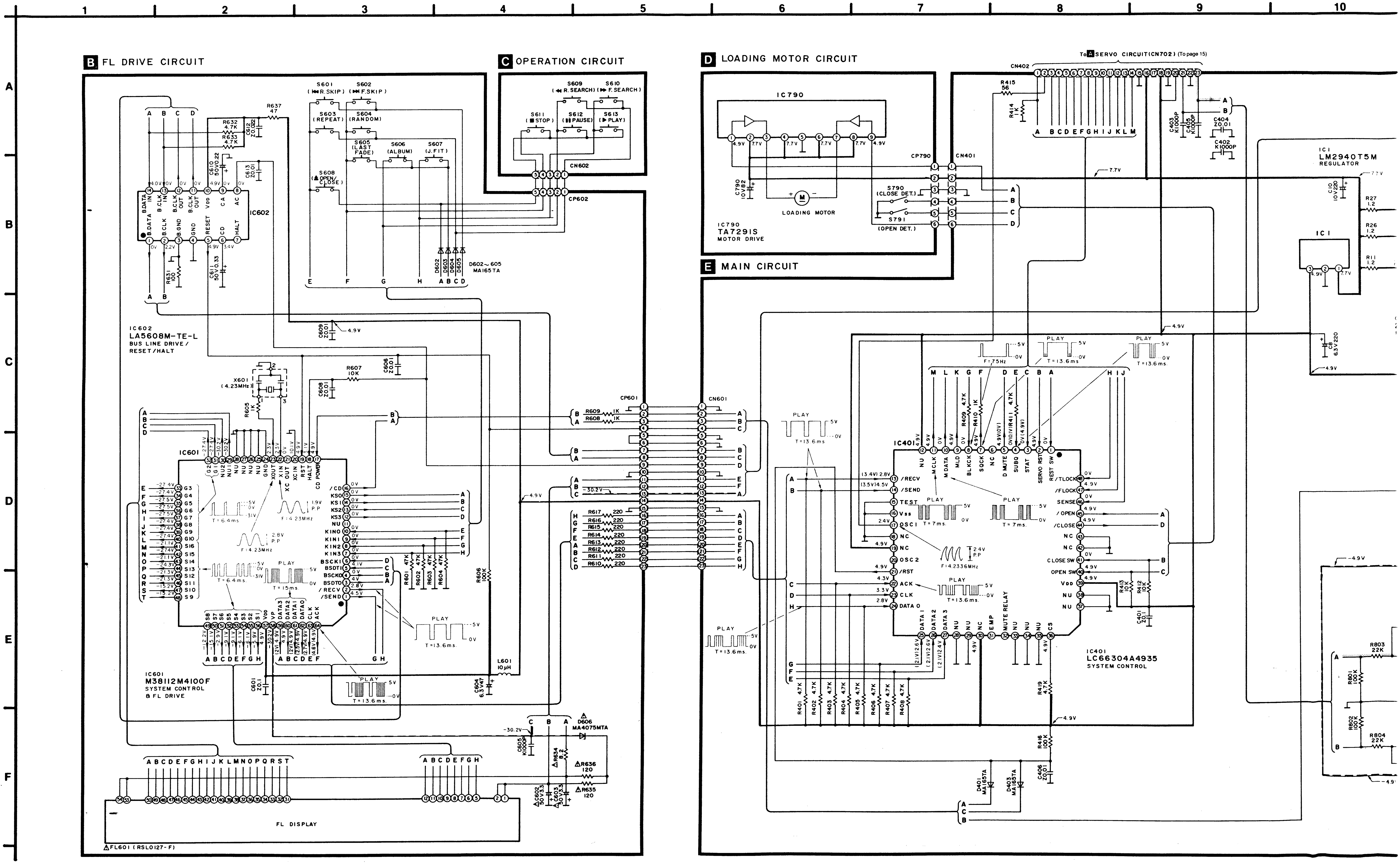
- **This schematic diagram may be modified at any time with the development of new technology.**

- The supply part number is described alone in the replacement parts list.

Ref. No	Production Parts No.	Supply Parts No.
IC1	LM2940T5M	LM2940T5
IC801	BA4558FT1	SVIBA4558F

▬ : Positive voltage line
■■■■ : Negative voltage line
░ : CD signal line

■ SCHEMATIC DIAGRAM •FL DRIVE, LOADING MOTOR, OPERATION AND MAIN CIRCUIT (Parts list on pages 35~38.)


1
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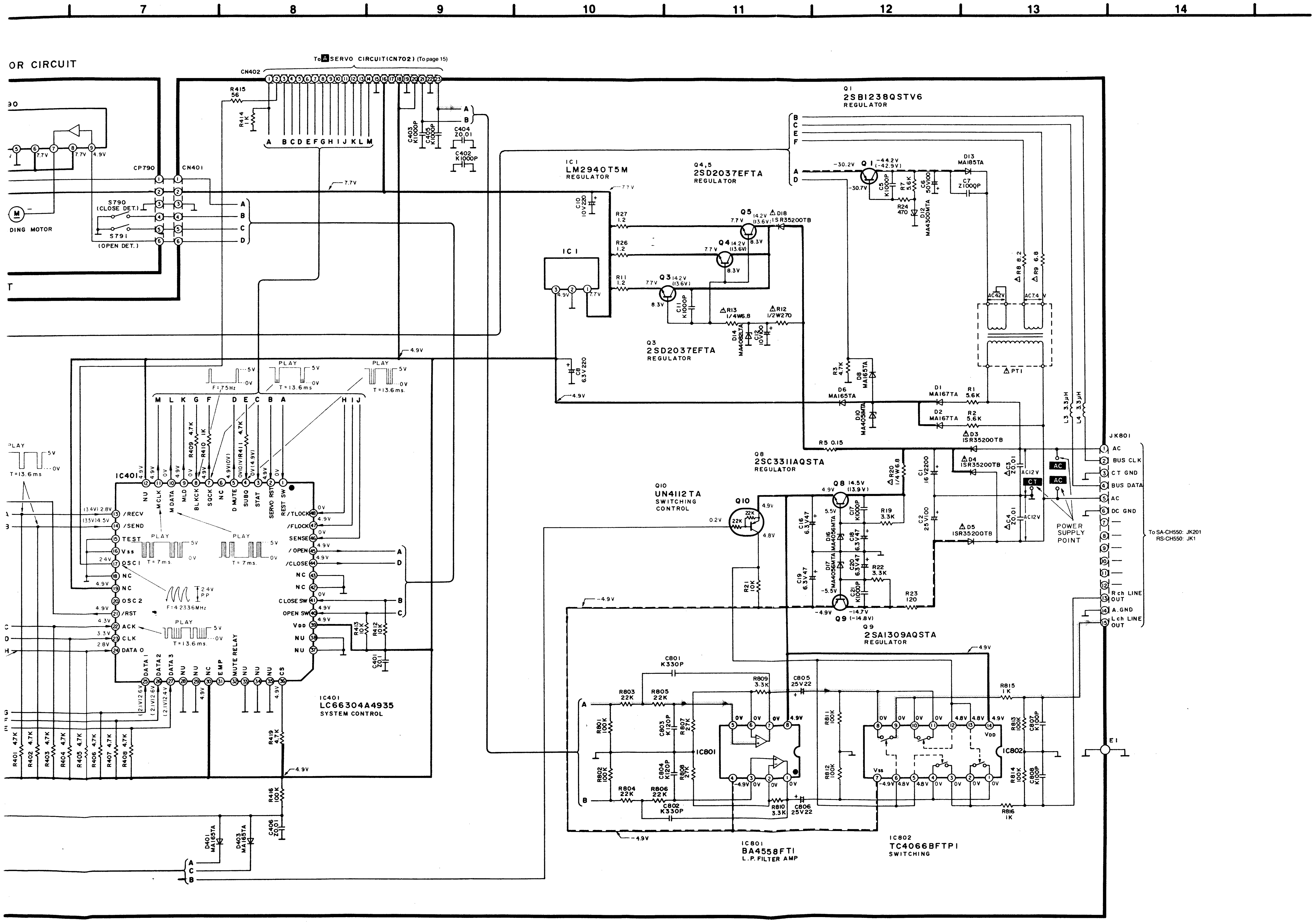
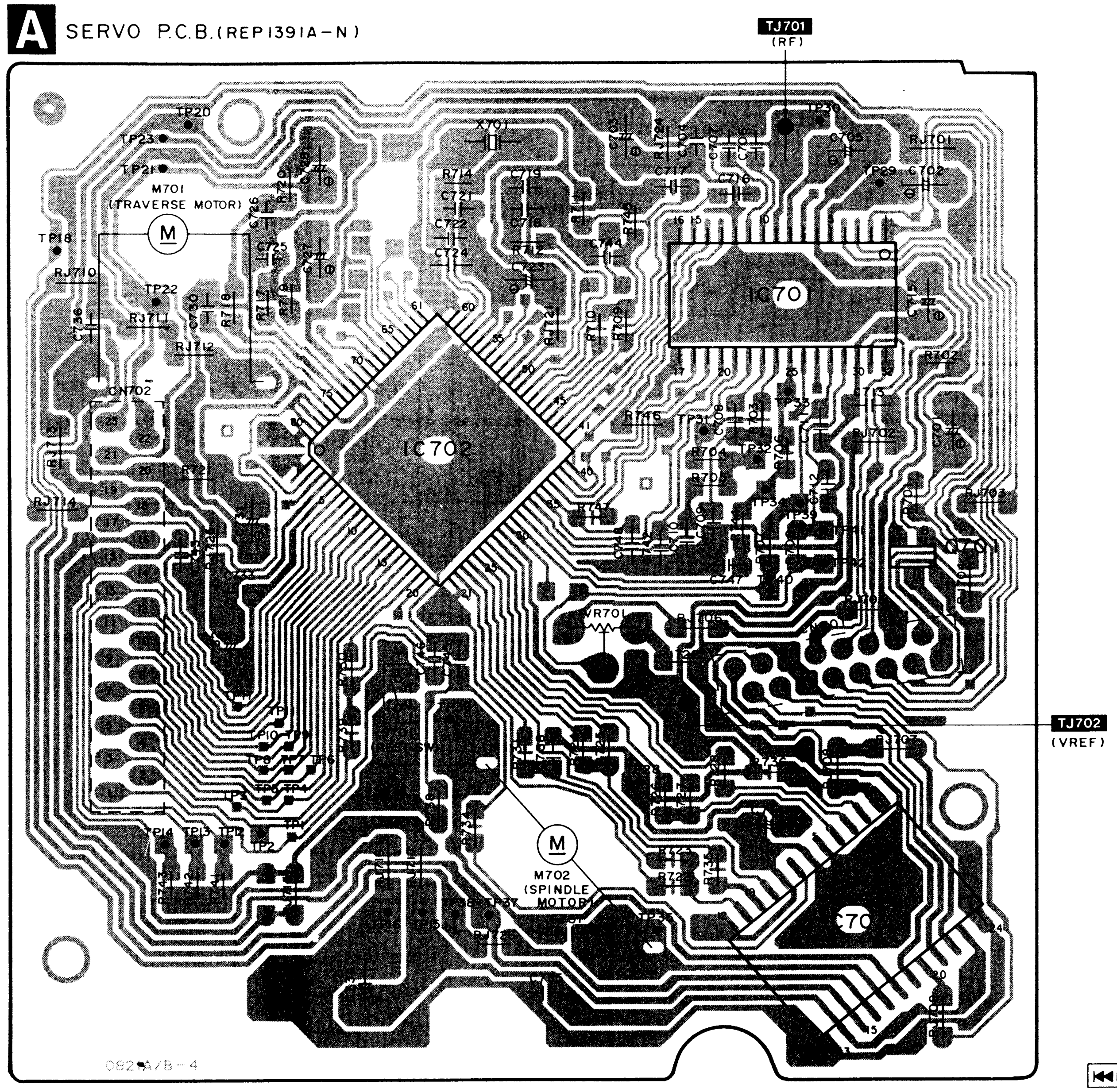
6
7
8
9
10
A
B
C
D
E
F
B FL DRIVE CIRCUIT
C OPERATION CIRCUIT
D LOADING MOTOR CIRCUIT
E MAIN CIRCUIT
To A SERVO CIRCUIT (CN702) (To page 15)
CN402
S601 (⏮R.SKIP)
S602 (⏭F.SKIP)
S603 (REPEAT)
S604 (RANDOM)
S605 (LAST FADE)
S606 (ALBUM)
S607 (J.FIT)
S608 (⏏OPEN/CLOSE)
S609 (◀◀ R.SEARCH)
S610 (▶▶ F.SEARCH)
S611 (■STOP)
S612 (❚❚PAUSE)
S613 (▶PLAY)
CN602
CP602
IC602
IC602 LA5608M-TE-L BUS LINE DRIVE/ RESET/HALT
D602~605 MA165TA
X601 (4.23MHz)
IC601
IC601 M38112M4100F SYSTEM CONTROL & FL DRIVE
CP601
CN601
L601 10μH
FL DISPLAY
⚠FL601 (RSL0127-F)
⚠D606 MA4075MTA
⚠R636 120
⚠R635 120
IC790
IC790 TA7291S MOTOR DRIVE
LOADING MOTOR
S790 (CLOSE DET.)
S791 (OPEN DET.)
CP790
CN401
IC1 LM2940T5M REGULATOR
IC401
IC401 LC66304A4935 SYSTEM CONTROL
D401 MA165TA
D403 MA165TA
PLAY
T=13.6ms
T=6.4ms
T=15ms
T=7ms
F:4.23MHz
F:4.2336MHz
F:7.5Hz

~38.)

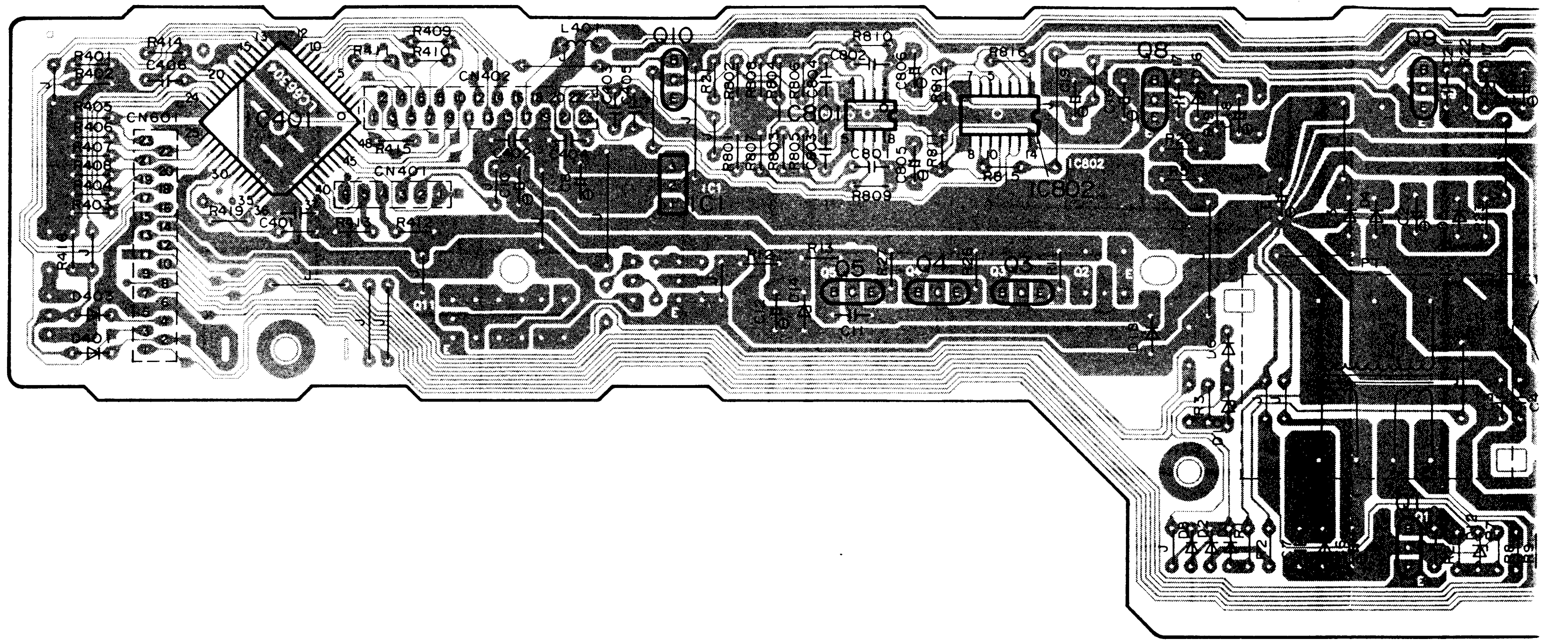

7
8
9
10
11
12
13
14
OR CIRCUIT
DING MOTOR
S790 (CLOSE DET.)
S791 (OPEN DET.)
CP790
CN401
CN402
To A SERVO CIRCUIT (CN702) (To page 15)
R415 56
R414 1K
C403 K1000P
C405 K1000P
C404 Z0.01
C402 K1000P
IC1 LM2940T5M REGULATOR
C10 10V220
Q4,5 2SD2037EFTA REGULATOR
Q5
Q4
Q3
Q3 2SD2037EFTA REGULATOR
R27 1.2
R26 1.2
R11 1.2
D18 1SR35200TB
C11 K1000P
R13 1/4W6.8
R12 1/2W270
D14 MA4082LTA
C12 10V100
C8 6.3V220
Q1 2SB1238QSTV6 REGULATOR
D13 MA185TA
C7 Z1000P
C5 K1000P
R7 5.6K
C6 50V100
R24 470
D12 MA4300MTA
R8 8.2
R9 6.8
AC42V
AC7.4V
PT1
L3 3.3µH
L4 3.3µH
R3 4.7K
D8 MA165TA
D6 MA165TA
D10 MA4051MTA
D1 MA167TA
R1 5.6K
D2 MA167TA
R2 5.6K
D3 1SR35200TB
D4 1SR35200TB
D5 1SR35200TB
R5 0.15
Q8 2SC3311AQSTA REGULATOR
R20 1/4W6.8
C1 16V2200
C2 25V100
C3 Z0.01
C4 Z0.01
AC12V
AC
CT
POWER SUPPLY POINT
JK801
AC
BUS CLK
CT GND
BUS DATA
AC
DC GND
Rch LINE OUT
A.GND
Lch LINE OUT
To SA-CH550: JK201
RS-CH550: JK1
E1
Q10 UN4112TA SWITCHING CONTROL
C16 6.3V47
D16 MA4056MTA
C17 K100P
R19 3.3K
C19 6.3V47
D17 MA4056MTA
C20 6.3V47
R22 3.3K
C21 K100P
R21 10K
R23 120
Q9 2SA1309AQSTA REGULATOR
IC401
IC401 LC66304A4935 SYSTEM CONTROL
PLAY
F=75Hz
T=13.6ms
T=7ms
F=4.2336MHz
2.4V PP
/RECV
/SEND
TEST
Vss
OSC1
NC
OSC2
/RST
ACK
CLK
DATA 0
DATA 1
DATA 2
DATA 3
EMP
MUTE RELAY
CS
NU
MCLK
MDATA
MLD
BLKCK
SQCK
D MUTE
SUBQ
STAT
SERVO RST
REST SW
/TLOCK
/FLOCK
SENSE
/OPEN
/CLOSE
CLOSE SW
OPEN SW
VDD
R409 4.7K
R410 1K
R411 4.7K
R413 10K
R412 10K
C401 Z0.1
R419 4.7K
R416 100K
C406 Z0.01
D401 MA165TA
D403 MA165TA
R401 4.7K
R402 4.7K
R403 4.7K
R404 4.7K
R405 4.7K
R406 4.7K
R407 4.7K
R408 4.7K
C801 K330P
R803 22K
R805 22K
R809 3.3K
C805 25V22
R801 100K
C803 K120P
R807 27K
R802 100K
C804 K120P
R808 27K
R804 22K
R806 22K
C802 K330P
R810 3.3K
C806 25V22
IC801
IC801 BA4558FT1 L.P. FILTER AMP
R811 100K
R812 100K
R815 1K
R813 100K
C807 K100P
R814 100K
C808 K100P
R816 1K
IC802
IC802 TC4066BFTP1 SWITCHING
VDD
Vss
-4.9V
4.9V
7.7V

■ PRINTED CIRCUIT BOARD DIAGRAM

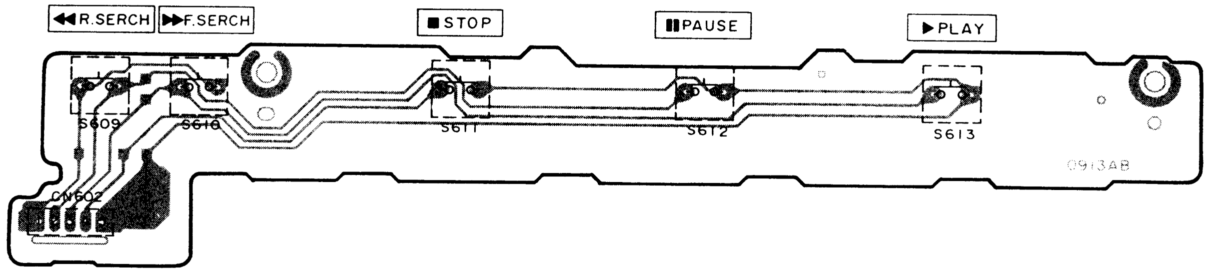
A SERVO P.C.B. (REP1391A-N)


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
TJ701
(RF)
TJ702
(VREF)
M701
(TRAVERSE MOTOR)
M702
(SPINDLE MOTOR)
IC701
IC702
X701
VR701
CN702
TP18
TP20
TP21
TP22
TP23
RJ710
RJ711
RJ712
RJ714
RJ701
RJ702
RJ703
082*A/B-4

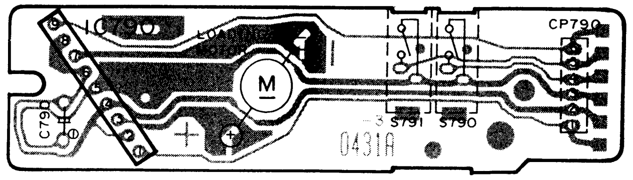
E MAIN P.C.B. (REP1446A-M)


IC401
IC802
CN401
CN402
CN601
Q10
Q8
L401
R409
R410
R414
R419
R810

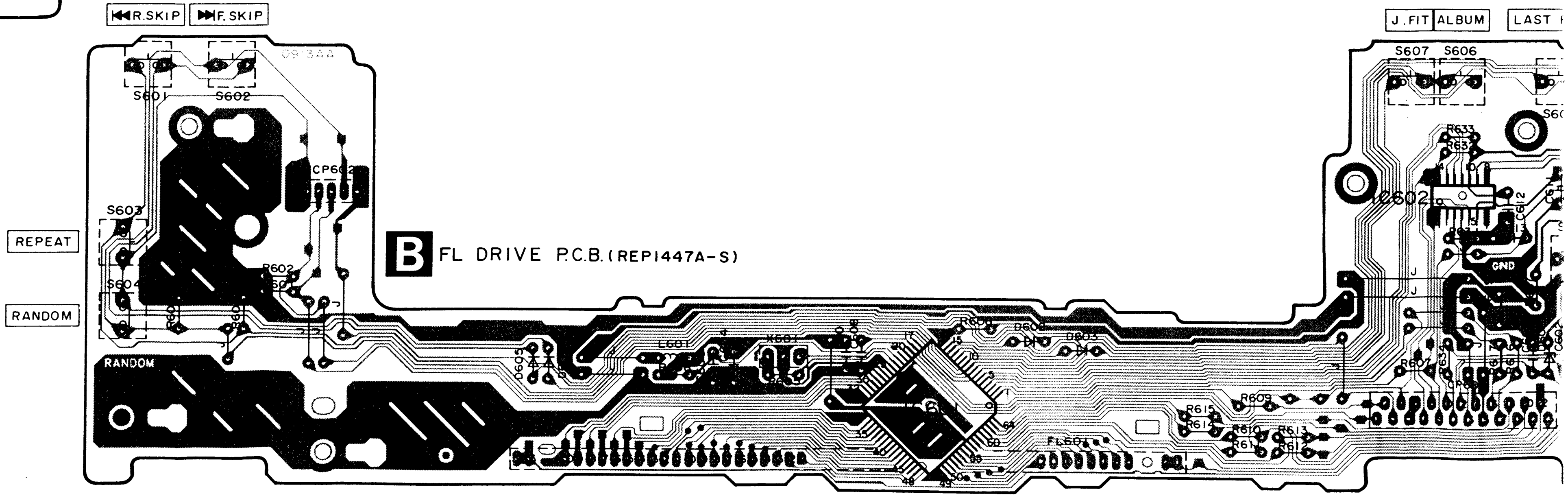
C OPERATION P.C.B. (REP1447A-S)


◀◀R.SERCH
▶▶F.SERCH
■STOP
❚❚PAUSE
▶PLAY
S609
S610
S611
S612
S613
CN602
0913AB

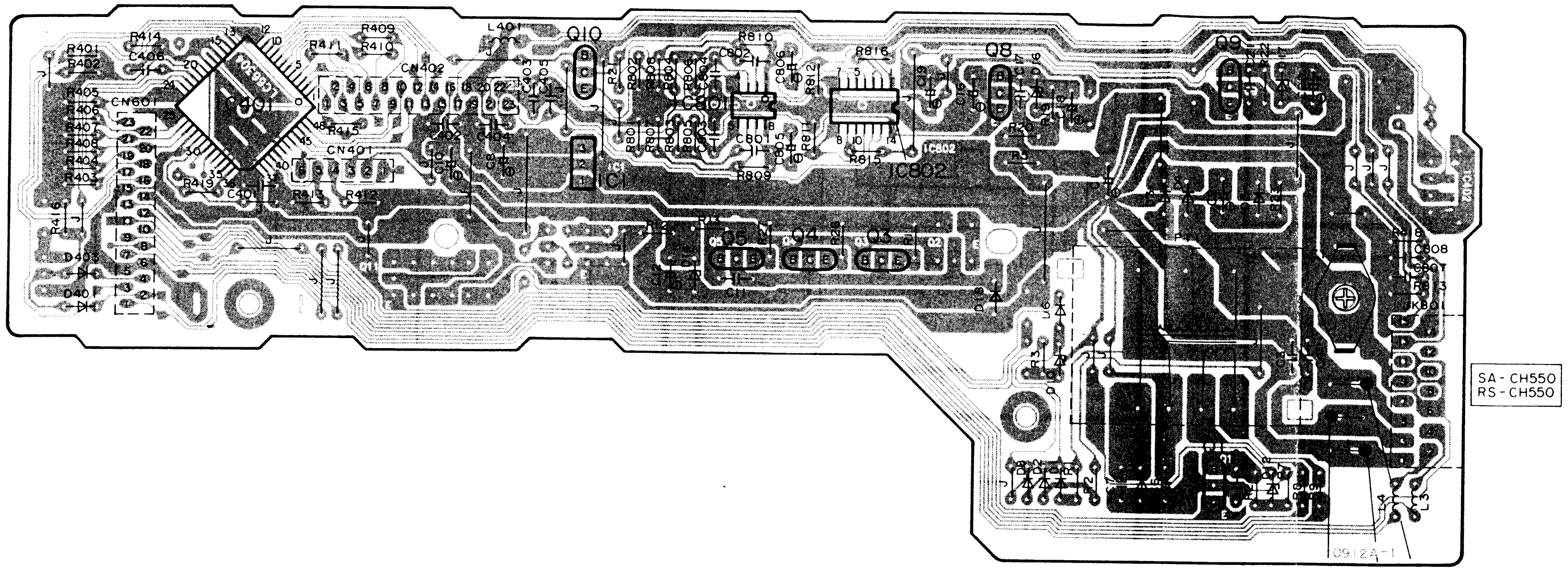
D LOADING MOTOR P.C.B. (REP0767)


IC790
CP790
S791
S790
C790
0431A

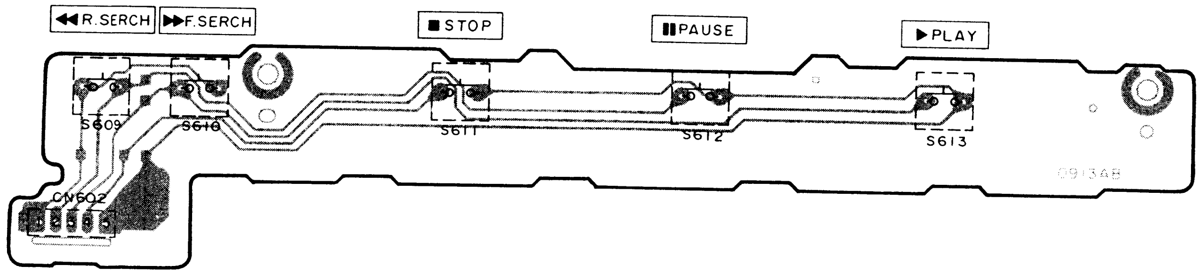
B FL DRIVE P.C.B. (REP1447A-S)

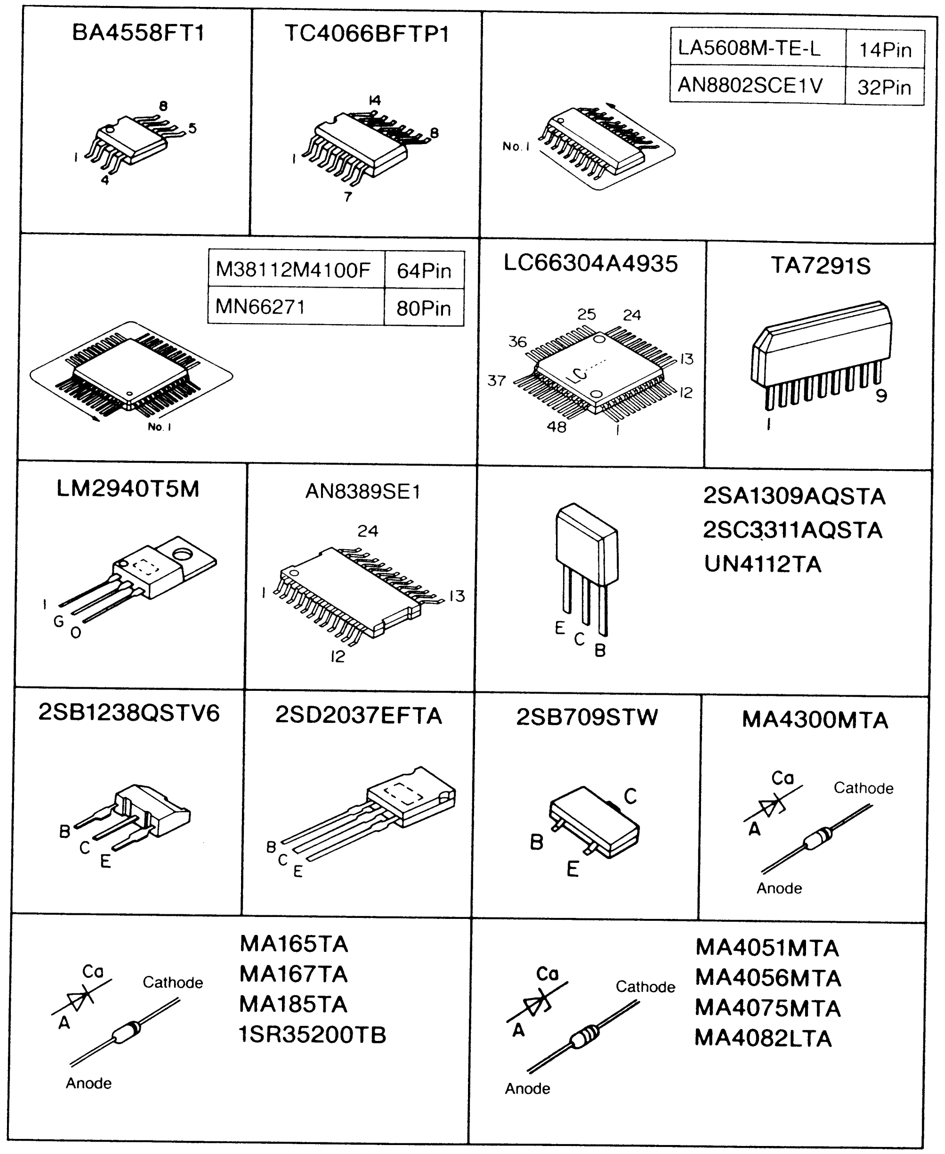

◀◀R.SKIP
▶▶F.SKIP
REPEAT
RANDOM
J.FIT
ALBUM
LAST
S601
S602
S603
S604
S606
S607
CP602
R602
IC602
IC601
FL601
L601
D603
D604
RANDOM
GND
0913AA

E MAIN P.C.B. (REP1446A-M)

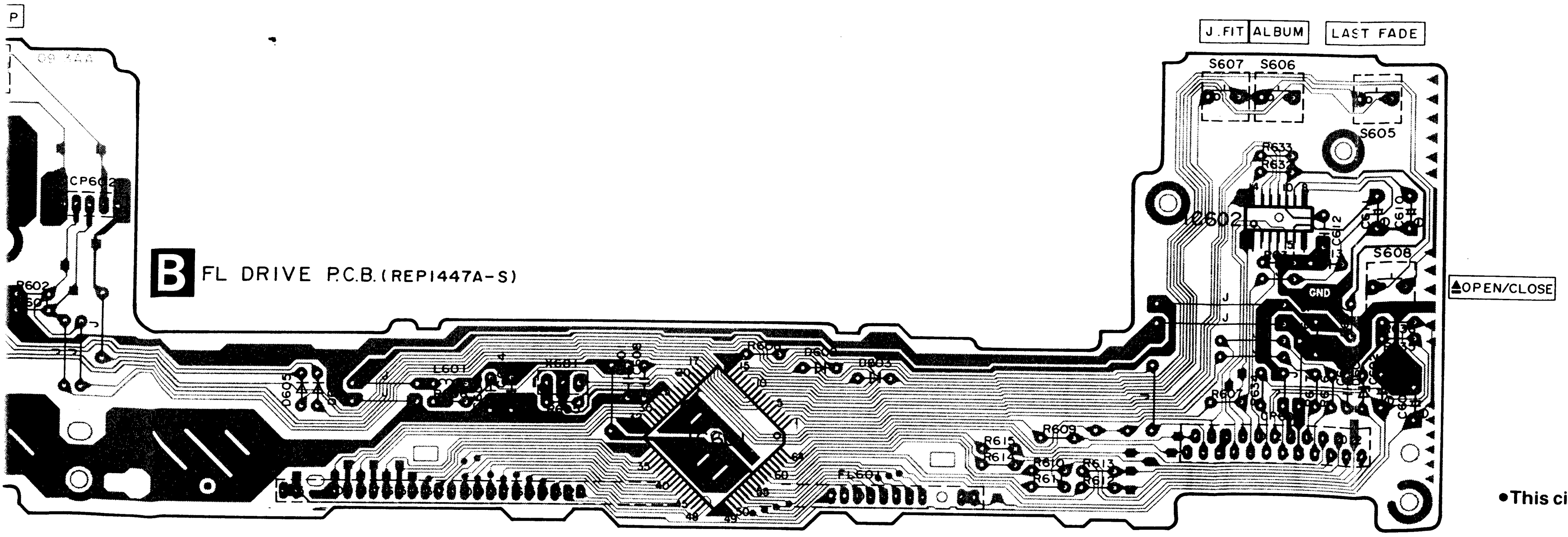

R401
R402
R405
R414
C406
CN601
IC401
R409
R410
R411
CN402
CN401
R415
R419
R413
R412
R416
D403
D401
L401
Q10
R810
C802
R816
IC801
C801
R809
R815
IC802
Q8
Q9
Q5
Q4
Q3
C808
C807
K801
SA-CH550
RS-CH550
CT
AC
AC
POWER SUPPLY POINT

C OPERATION P.C.B. (REP1447A-S)


◀◀R.SERCH
▶▶F.SERCH
■STOP
❚❚PAUSE
▶PLAY
S609
S610
S611
S612
S613
CN602

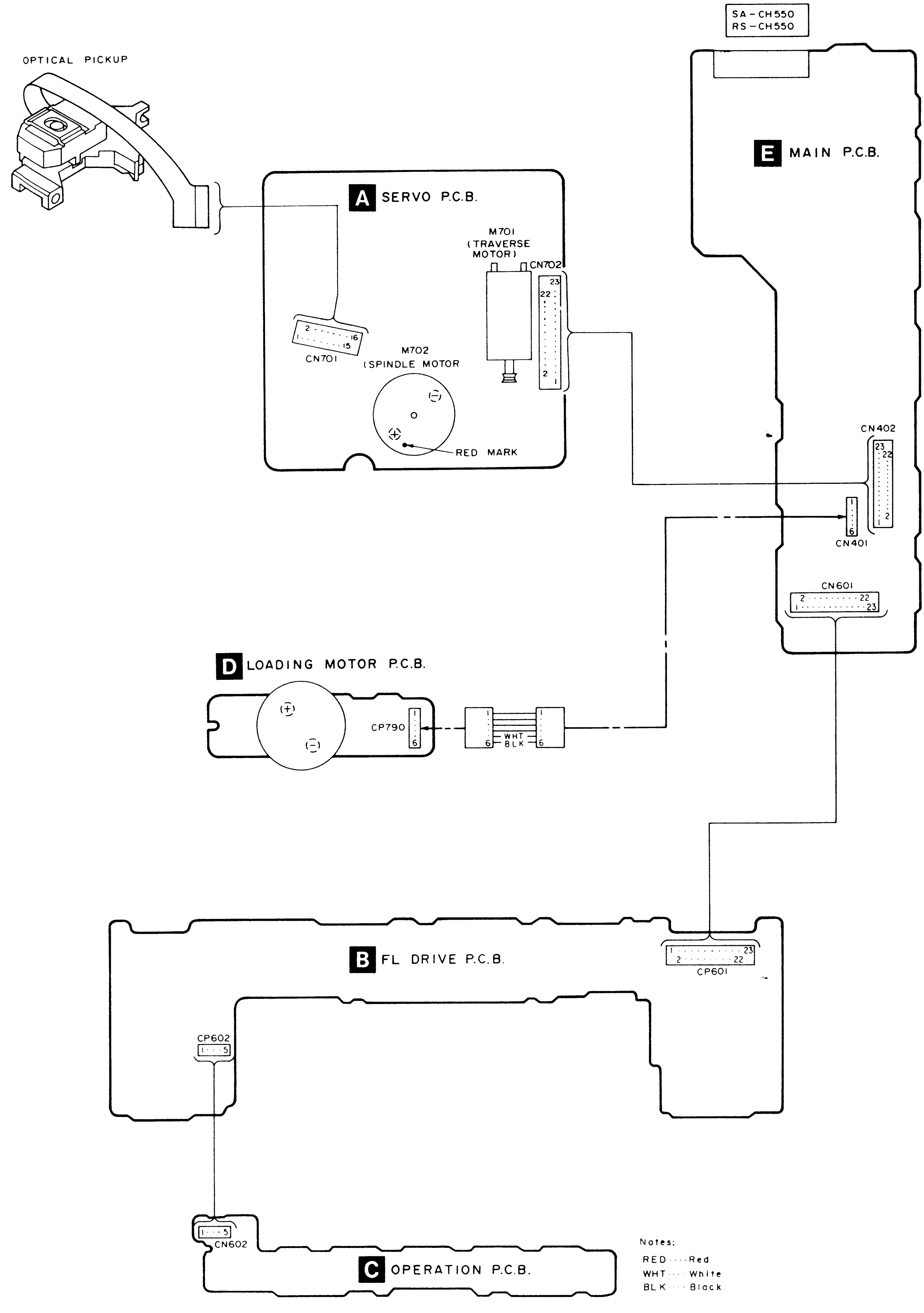

BA4558FT1
TC4066BFTP1
LA5608M-TE-L 14Pin
AN8802SCE1V 32Pin
No.1
M38112M4100F 64Pin
MN66271 80Pin
No.1
LC66304A4935
25
24
36
37
13
12
48
1
TA7291S
1
9
LM2940T5M
I
G
O
AN8389SE1
24
1
13
12
2SA1309AQSTA
2SC3311AQSTA
UN4112TA
E
C
B
2SB1238QSTV6
B
C
E
2SD2037EFTA
B
C
E
2SB709STW
C
B
E
MA4300MTA
Ca
A
Cathode
Anode
MA165TA
MA167TA
MA185TA
1SR35200TB
Ca
A
Cathode
Anode
MA4051MTA
MA4056MTA
MA4075MTA
MA4082LTA
Ca
A
Cathode
Anode

B FL DRIVE P.C.B. (REP1447A-S)


J.FIT
ALBUM
LAST FADE
S607
S606
S605
S608
▲OPEN/CLOSE
IC602
GND
L601
FL601
CP602
R602

•This circuit board diagram may be modified at any time with the development of new technology.

■ WIRING CONNECTION DIAGRAM


SA-CH550
RS-CH550
OPTICAL PICKUP
E MAIN P.C.B.
A SERVO P.C.B.
M701
(TRAVERSE MOTOR)
CN702
23
22
2
1
2
16
1
15
CN701
M702
(SPINDLE MOTOR
RED MARK
CN402
23
22
2
1
6
CN401
CN601
2
22
1
23
D LOADING MOTOR P.C.B.
CP790
1
6
1
6
WHT
BLK
1
6
1
23
2
22
CP601
B FL DRIVE P.C.B.
CP602
1
5
1
5
CN602
C OPERATION P.C.B.

Notes:

RED····Red

WHT····White

BLK····Black

■ NEW DIGITAL SERVO CIRCUIT

This model employs a new digital servo circuit. Compared to the old digital servo circuit, the following points have been improved.

1. **Reduced operated noise**
   Loading mechanism 2-level speed reducer
2. **Reduced access time**
   [(old) 2.9 seconds→(new) 1.9 seconds]
   Change of traverse gear
3. **Improved vibration resistance**
   Rubber and spring 2-level floating mechanism
   [fo=50 Hz (old)→20 Hz (new)]
4. **Reduced number of parts**
   Use of a single super IC tip
   3 chips (MN6626, MN6650, AN8800) are reduced to a single chip (MN66271)

●Refer to the service manual for Model No. SL-CH7, Order No. AD9104084C8 for information on DIGITAL SERVO SYSTEM and CHECKING THE OPERATION PROBLEMS ON THE TRAVERSE DECK (OPTICAL PICKUP).

■ MEASUREMENTS AND ADJUSTMENTS

Caution:
- ●It is very dangerous to look at or touch the laser beam. (Laser radiation is invisible.)
  With the unit turned "on", laser radiation is emitted from the pickup lens.
  Avoid exposure to the laser beam, especially when performing adjustments.

■ This unit (SL-CH550) is actuated by power supply from the tuner amplifier SA-CH550.
If you wish to actuate this unit without using the tuner amplifier SA-CH550 for checking or repairing, follow below procedure.

●Apply AC 10 V between AC (J1)– CT (J3)– AC (J2).

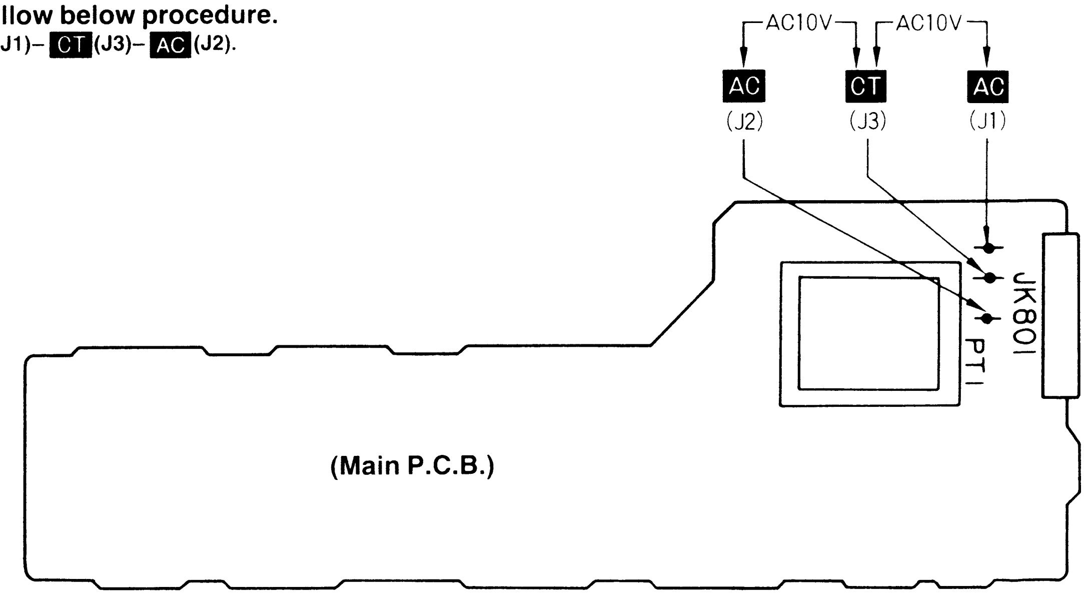

AC10V
AC10V
AC
(J2)
CT
(J3)
AC
(J1)
JK801
PT1
(Main P.C.B.)

Fig. 1

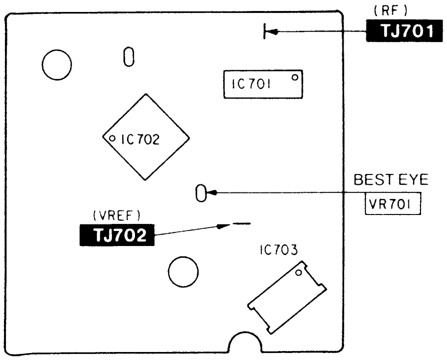

(RF)
TJ701
IC701
IC702
BEST EYE
VR701
(VREF)
TJ702
IC703

Fig. 2

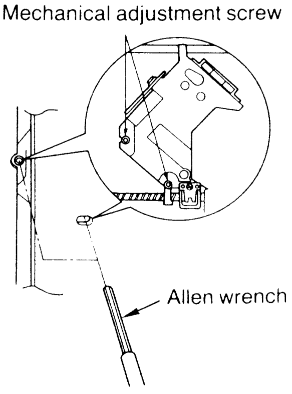

Mechanical adjustment screw
Allen wrench

Fig. 3

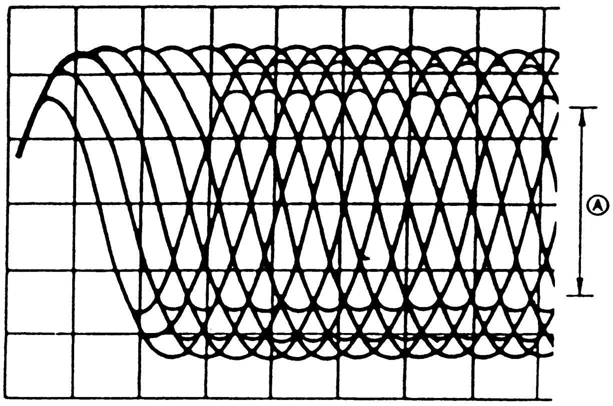
Measuring Instruments and Special Tools

- Test disc
  1. Playability test disc (SZZP1054C)
  2. Uneven test disc (SZZP1056C)
- Allen wrench (M2.0) (SZZP1101C)
- Oscilloscope

(1) MECHANICAL ADJUSTMENT

- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
- Make adjustments to improve playability when the traverse deck has not been replaced. Make the electrical adjustments first.

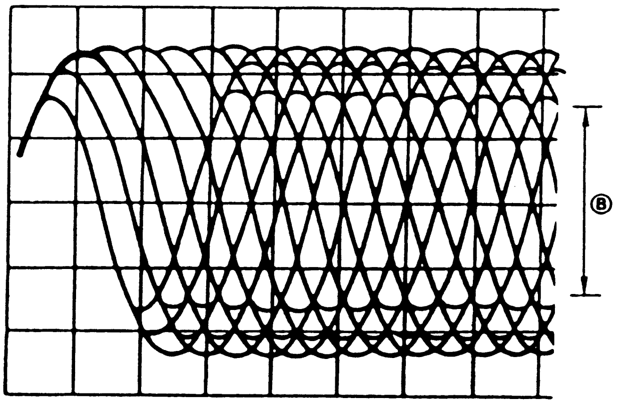
1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT .... 200 mV
   SWEEP .... 0.5 µsec
   Input coupling .... AC
2. Switch the player power **ON**, and play track **19** on the test disc (SZZP1056C).
3. Leave the player in Play mode and place it as shown in the figure on the right.
4. Alternately adjust the two mechanical adjusting screws with the 2.0 mm allen wrench (SZZP1101C) until the RF signal amplitude on the oscilloscope is maximize. (Shown in Fig. 3)
5. After completing the adjustment, lock the **mechanical adjustments** with lock paint (RZZOL01).



Ⓐ **Maximize the amplitude.**

(2) BEST EYE (PD BALANCE) ADJUSTMENT

1. Connect the oscilloscope's CH. 1 probe across **TJ701** (+) and **TJ702** (VREF) on the Servo P.C.B.
   Oscilloscope setting:
   VOLT .... 200 mV
   SWEEP .... 0.5 µsec
   Input coupling .... AC
2. **Switch the player power ON, and play the 1 kHz (track 1) on test disc (SZZP1054C).**
3. **Adjust VR701 until the RF signal eye pattern amplitude is maximized.** (Shown in Fig. 2)



Ⓑ Maximize the amplitude.

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

·Checking Skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

·Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

·Checking Playability

1. Play the 0.7 mm black dot and the 0.7 mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc and verify that no sound skip or noise occurs.

■ FUNCTION OF IC TERMINALS

•IC601 (M38112M4100F)

Pin No.	Terminal Name	I/O	Function
1	/SEND	O	Mechanism control communication transmission enable
2	/RECV	O	Mechanism control communication transmission enable
3	BSDTO	O	Bus data output
4	BSCKO	O	Bus clock output
5	BSDTI	I	Bus data input
6	BSCKI	I	Bus clock input
7	KIN3	I	Key matrix
8	KIN2	I	Key matrix
9	KIN1	I	Key matrix
10	KIN0	I	Key matrix
11	——	—	No use
12	KS3	O	Key scan strobing output
13	KS2	O	Key scan strobing output
14	KS1	O	Key scan strobing output
15	KS0	O	Key scan strobing output
16	/CD	O	CD power control
17	CD POWER	I	Station detector input
18	HALT	I	Power failure detection input
19	RST	I	Reset input
20	XC IN	—	No use
21	XCOUT	—	No use
22	XIN	I	Oscillator connection clock input
23	XOUT	O	Oscillator connection clock output
24	GND	—	Power supply GND
25	——	—	No use (GND connection)
26	——		
27	——		
28	——		
29	MU1	O	Mute (for CD/TUNER)
30	MU2		
31 ≀ 40	G1 ≀ G10	O	FLD grid output
41 ≀ 56	S16 ≀ S1	O	FLD segment output
57	VDD	—	Power supply +5 V
58	VP	—	FLD pull-down power supply
59	DATA3	I/O	Mechanism control communication data
60	DATA2	I/O	Mechanism control communication data
61	DATA1	I/O	Mechanism control communication data
62	DATA0	I/O	Mechanism control communication data
63	CLK	I/O	Mechanism control communication clock
64	ACK	I/O	Mechanism control communication acknowledge

•IC703 (AN8389SE1)

Pin No.	Terminal Name	I/O	Function
1	Vcc	I	Power supply
2	VREF	I	VREF input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	Ground connection
6	NC	—	No connection
7	NRESET	I	Reset input
8	GND	—	Ground connection
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (no use, open)
13	PVCC1	I	Power supply (1) for driver
14	PGND1	—	Ground connection (1) for driver
15	D1−	O	Motor driver (1) reverse-action output
16	D1+	O	Motor driver (1) forward-action output
17	D2−	O	Motor driver (2) reverse-action output
18	D2+	O	Motor driver (2) forward-action output
19	D3−	O	Motor driver (3) reverse-action output
20	D3+	O	Motor driver (3) forward-action output
21	D4−	O	Motor driver (4) reverse-action output
22	D4+	O	Motor driver (4) forward-action output
23	PGND2	—	Ground connection (2) for driver
24	PVCC2	I	Power supply (2) for driver

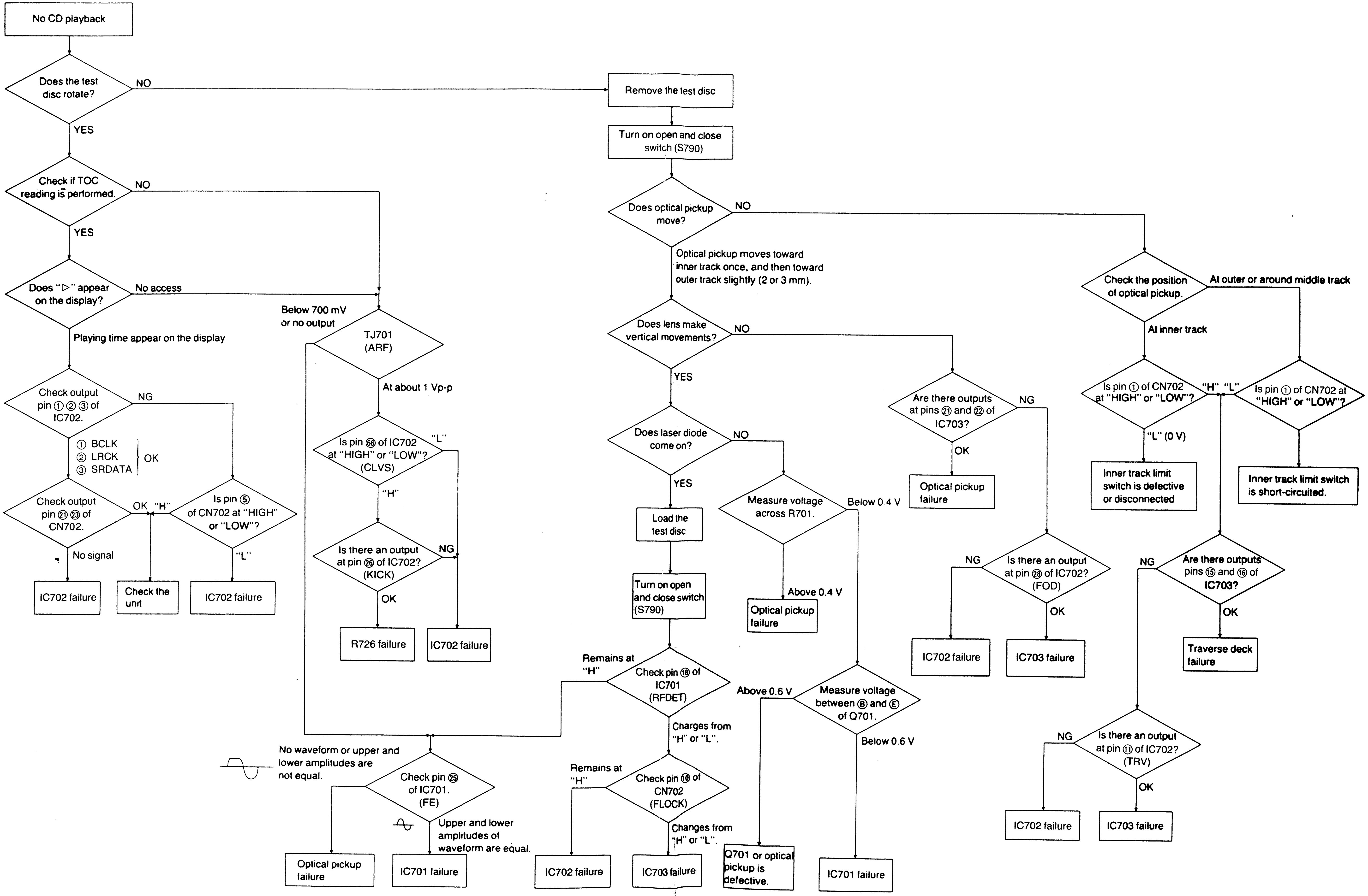
•IC701 (AN8802SCE1V)

Pin No.	Terminal Name	I/O	Function
1	PDAD	I	PD A channel signal input with delay
2	PDA	I	PD A channel signal input without delay
3	LPD	I	Laser PD connection
4	LD	O	Power supply for LD driving
5	AMPI	I	RF amplifier input
6	V_{CC}	I	Power supply connection
7	AMPO	O	RF amplifier output (no use, open)
8	CAGC	I	AGC loop filter connection
9	ARF	O	RF AGC output
10	CENV	I	Capacitor connection for RF detection
11	CEA	I	Capacitor connection for HPF amplifier
12	GND	—	Ground connection
13	LDON	I	ON/OFF input of LD APC ("H": ON, "L": OFF)
14	TES	I	Tracking error shunt signal input ("H": shunt)
15	PLAY	I	Play signal input ("H": PLAY)
16	WVEL	I	WVEL control
17	BDO	O	BDO output
18	/RFDET	O	NRFDET output
19	CROSS	O	CROSS output
20	OFTR	O	OFTR output
21	VDET	O	VDET output
22	ENV	O	ENV output
23	TEBPF	I	Vibration detection input
24	TE	O	Tracking error output
25	FE	O	Focus error output
26	PTO	O	Potentioamplifier output (no use, open)
27	PTI	I	Potentioamplifier inversion input (no use, open)
28	TBAL	I	Tracking balance input
29	FBAL	I	Focus balance input
30	VREF	O	VREF output
31	PDB	I	PD B channel signal input without delay
32	PDBD	I	PD B channel signal input with delay

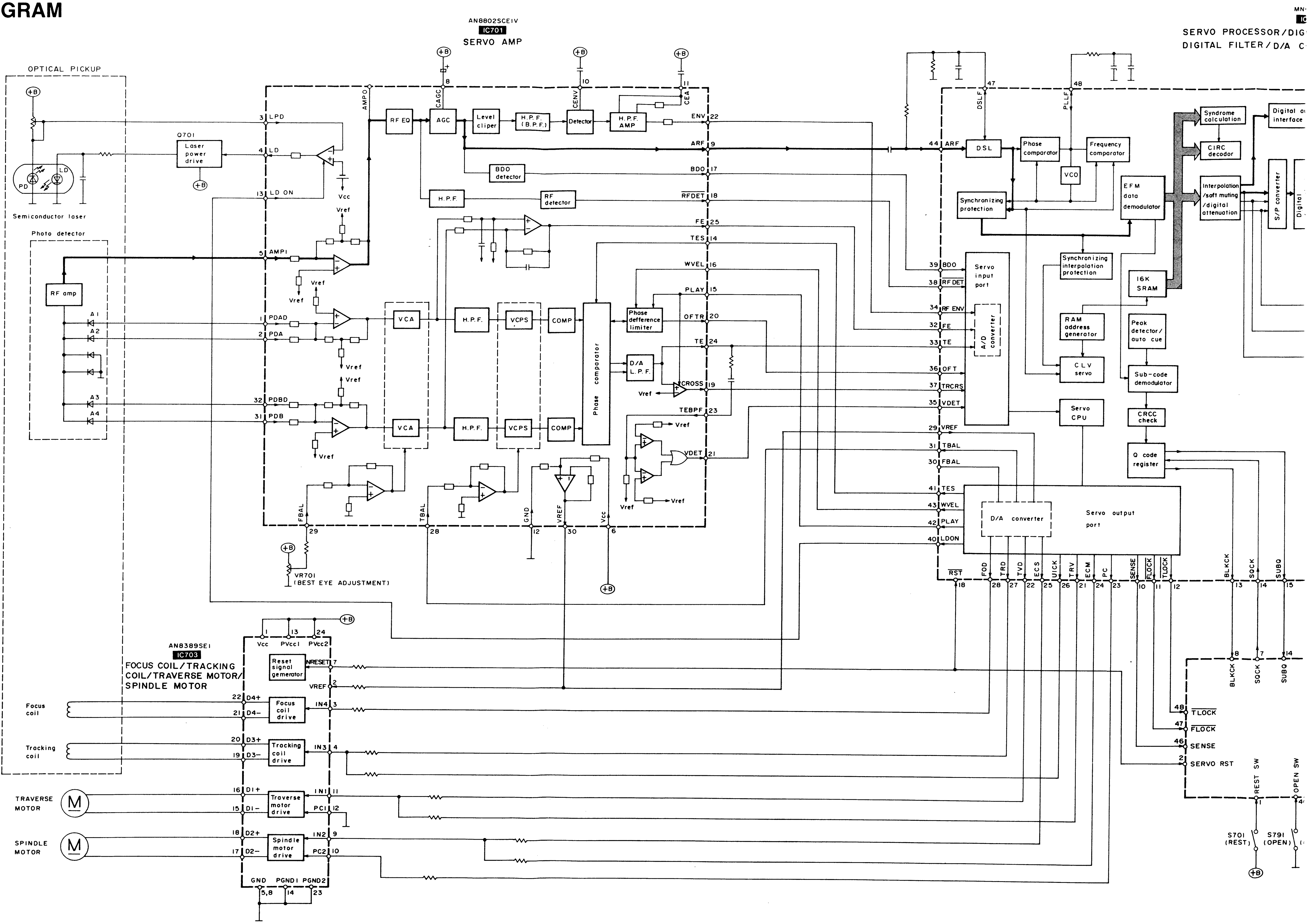
•IC702 (MN66271)

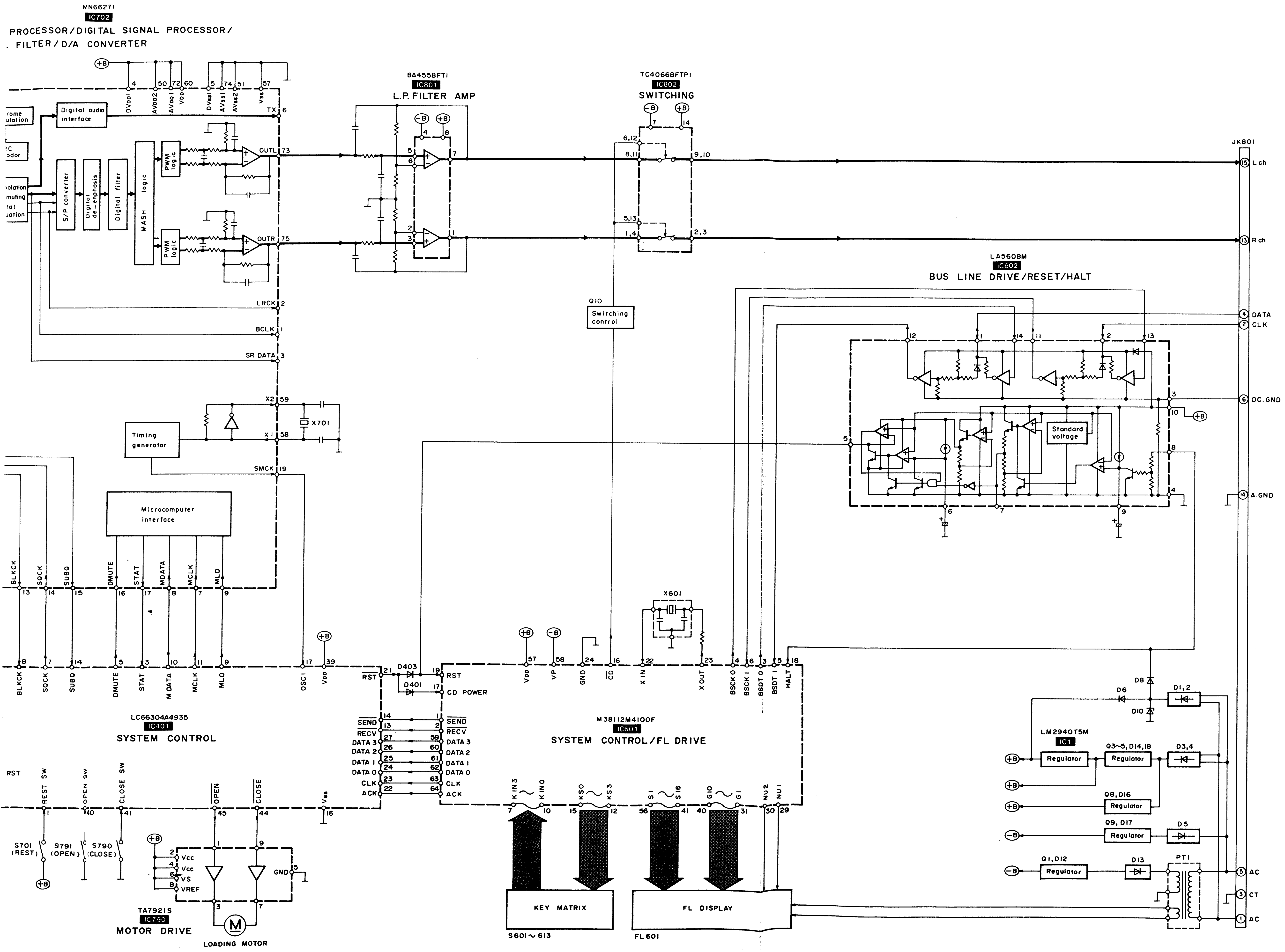
Pin No.	Terminal Name	I/O	Function
1	BCLK	O	Bit clock output for serial data (no used, open)
2	LRCK	O	L/R identification signal output (no use, open)
3	SRDATA	O	Serial data output (no used, open)
4	$DV_{DD}1$	I	Power supply input (for digital circuit)
5	$DV_{SS}1$	—	GND (for digital circuit)
6	TX	O	Digital audio interface signal output
7	MCLK	I	Microprocessor command clock signal input (Latches data at first transition)
8	MDATA	I	Microprocessor command data signal input
9	MLD	I	Microprocessor command load signal input
10	SENSE	O	Sence signal output (OFT, FESL, MAGEND, NAJEND, POSAD, SFG)
11	/FLOCK	O	Focus servo feeding signal output ("L": Feed)
12	/TLOCK	O	Tracking servo feeding signal output ("L": Feed)
13	BLKCK	O	Sub-code block clock signal output (fBLKCK=75 Hz during normal playback)
14	SQCK	I	External clock signal input for sub-code Q register
15	SUBQ	O	Sub-code Q code output
16	DMUTE	I	Muting input ("H": Mute)
17	STAT	O	Status signal output (CRC, CUE, CLVS, TTSTVP, FCLV, SQCK)
18	/RST	I	Reset input
19	SMCK	O	1/2-divided clock signal of crystal oscillating at MSEL="H" (fSMCK=8.4672 MHz) 1/4-divided clock signal of crystal oscillating at MSEL="L" (fSMCK=4.2336 MHz)
20	PMCK	O	1/192-divided clock signal of crystal oscillating (fPMCK=88.2 KHz) (no use, open)
21	TRV	O	Traverse forced feed output
22	TVD	O	Traverse drive output
23	PC	O	Spindle motor ON signal output ("L": ON)
24	ECM	O	Spindle motor drive signal output (forced mode output)
25	ECS	O	Spindle motor drive signal output (servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	I	D/A (drive) output (TVD, ECS, TRD, FOD, FBAL, TBAL) Reference voltage input
30	FBAL	O	Focus balance adjustment output (no use, open)
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input
35	VDET	I	Vibration detection signal input ("H": detection)
36	OFT	I	Off-track signal input ("H": off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal input ("L": detection)
39	BDO	I	Dropout signal input ("H": Dropout)
40	LDON	O	Laser on signal output ("H": ON)
41	TES	O	Tracking error shunt signal output ("H": shunt)
42	PLAY	O	Play signal out ("H": PLAY)
43	WVEL	O	Double speed status signal output ("H": Double speed)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias (no use, open)
47	DSLF	I/O	DSL loop filter
48	PLLF	I/O	PLL loop filter
49	VCOF	I/O	VCO loop filter (no use, open)
50	AVDD2	I	Power supply input (for analog circuit)
51	AVSS2	—	GND (for analog circuit)
52	EFM	O	EFM signal output (not use, open)
53	PCK	O	PLL extraction clock output (fPCK=4.321 MHz during normal playback) (no use, open)
54	PDO	O	Phase comparison signal of EFM and PCK signals (no use, open)
55	SUBC	O	Sub-code serial data output (no use, open)
56	SBCK	I	Clock input for sub-code serial data (no use, open)
57	V_{SS}	—	GND
58	X1	I	Crystal oscillating circuit input (f=16.9344 MHz)
59	X2	O	Crystal oscillation circuit output (f=16.9344 MHz)
60	VDD	I	Power supply input (for oscillating circuit)
61	BYTCK	O	Byte clock output (no use, open)
62	/CLDCK	O	Sub-code frame clock signal output (fCLDCK=7.35 kHz during normal playback)
63	FCLK	O	Crystal frame clock signal output (fFCLK=7.35 kHz, double=14.7 kHz)
64	PFLAG	O	Interpolation flag output ("H": Interpolation) (no use, open)
65	FLAG	O	Flage output (no use, open)
66	CLVS	O	Spindle servo phase synchronizing signal output ("H": CLV, "L": rough servo) (no use, open)
67	CRC	O	Sub-code CRC checked output ("H": OK, "L": NG) (no use, open)
68	DEMPH	O	De-emphasis ON signal output ("H": ON) (no use, open)
69	RESY	O	Frame resynchronizing signal output (no use, open)
70	/RST2	I	Reset input through MASH circuit ("L": Reset)
71	/TEST	I	Test input
72	AVDD1	I	Power supply input (for analog circuit)
73	OUTL	O	Left channel audio signal output
74	AVSS1	—	GND
75	OUTR	O	Right channel audio signal output
76	RSEL	I	RF signal polarity assignment input (at "H" level, RSEL="H"; at "L" level, RSEL=L)
77	CSEL	I	Crystal oscillating frequency designation input ("L": 16.9344 MHz, "H": 33/8688 MHz)
78	PSEL	I	Test input (normally, "L") (no use, open)
79	MSEL	I	Output frequency switching for SMCK terminal "H": SMCK=8.4672 MHz "L": SMCK=4.2336 MHz (no use, open)
80	SSEL	I	Output mode switching of SUBQ terminal ("H": Q code buffer mode)

■ TROUBLESHOOTING GUIDE


No CD playback
Does the test disc rotate?
NO
YES
Check if TOC reading is performed.
NO
YES
Does "▷" appear on the display?
No access
Playing time appear on the display
Check output pin ① ② ③ of IC702.
NG
① BCLK
② LRCK
③ SRDATA
OK
Check output pin ㉑ ㉓ of CN702.
OK
"H"
Is pin ⑤ of CN702 at "HIGH" or "LOW"?
"L"
No signal
IC702 failure
Check the unit
IC702 failure
Below 700 mV or no output
TJ701 (ARF)
At about 1 Vp-p
Is pin ㊻ of IC702 at "HIGH" or "LOW"? (CLVS)
"L"
"H"
Is there an output at pin ㉖ of IC702? (KICK)
NG
OK
R726 failure
IC702 failure
No waveform or upper and lower amplitudes are not equal.
Check pin ㉕ of IC701. (FE)
Upper and lower amplitudes of waveform are equal.
Optical pickup failure
IC701 failure
Remove the test disc
Turn on open and close switch (S790)
Does optical pickup move?
NO
Optical pickup moves toward inner track once, and then toward outer track slightly (2 or 3 mm).
Does lens make vertical movements?
NO
YES
Does laser diode come on?
NO
YES
Load the test disc
Turn on open and close switch (S790)
Remains at "H"
Check pin ⑱ of IC701 (RFDET)
Charges from "H" or "L".
Remains at "H"
Check pin ⑩ of CN702 (FLOCK)
Changes from "H" or "L".
IC702 failure
IC703 failure
Measure voltage across R701.
Below 0.4 V
Above 0.4 V
Optical pickup failure
Above 0.6 V
Measure voltage between Ⓑ and Ⓔ of Q701.
Below 0.6 V
Q701 or optical pickup is defective.
IC701 failure
Are there outputs at pins ㉑ and ㉒ of IC703?
NG
OK
Optical pickup failure
NG
Is there an output at pin ㉘ of IC702? (FOD)
OK
IC702 failure
IC703 failure
Check the position of optical pickup.
At outer or around middle track
At inner track
Is pin ① of CN702 at "HIGH" or "LOW"?
"H"
"L"
Is pin ① of CN702 at "HIGH" or "LOW"?
"L" (0 V)
Inner track limit switch is defective or disconnected
Inner track limit switch is short-circuited.
NG
Are there outputs pins ⑮ and ⑯ of IC703?
OK
Traverse deck failure
NG
Is there an output at pin ⑪ of IC702? (TRV)
OK
IC702 failure
IC703 failure

■ BLOCK DIAGRAM


AN8802SCEIV
IC701
SERVO AMP
OPTICAL PICKUP
Semiconductor laser
Photo detector
RF amp
PD
LD
Q701
Laser power drive
LPD
LD
LD ON
AMPI
PDAD
PDA
PDBD
PDB
AMPO
RF EQ
AGC
CAGC
Level cliper
H.P.F (B.P.F.)
CENV
Detector
H.P.F. AMP
CEA
ENV
ARF
BDO detector
BDO
H.P.F.
RF detector
RFDET
FE
TES
WVEL
PLAY
VCA
H.P.F.
VCPS
COMP
Phase comparator
Phase defference limiter
OFTR
TE
D/A L.P.F.
CROSS
TEBPF
VDET
Vref
Vcc
FBAL
TBAL
GND
VREF
VR701 (BEST EYE ADJUSTMENT)
AN8389SEI
IC703
FOCUS COIL/TRACKING COIL/TRAVERSE MOTOR/SPINDLE MOTOR
Vcc
PVcc1
PVcc2
Reset signal generator
NRESET
VREF
Focus coil
Focus coil drive
IN4
D4+
D4−
Tracking coil
Tracking coil drive
IN3
D3+
D3−
TRAVERSE MOTOR
Traverse motor drive
IN1
PC1
D1+
D1−
SPINDLE MOTOR
Spindle motor drive
IN2
PC2
D2+
D2−
GND
PGND1
PGND2
M
SERVO PROCESSOR/DIG
DIGITAL FILTER/D/A C
DSLF
PLLF
ARF
DSL
Phase comparator
Frequency comparator
VCO
Synchronizing protection
EFM data demodulator
Syndrome calculation
CIRC decodor
Interpolation /soft muting /digital attenuation
Digital au interface
S/P converter
Synchronizing interpolation protection
16K SRAM
RAM address generator
CLV servo
Peak detector/ auto cue
Sub-code demodulator
CRCC check
Q code register
Servo CPU
Servo input port
A/D converter
BDO
RF DET
RF ENV
FE
TE
OFT
TRCRS
VDET
VREF
TBAL
FBAL
TES
WVEL
PLAY
LDON
D/A converter
Servo output port
RST
FOD
TRD
TVD
ECS
UICK
TRV
ECM
PC
SENSE
FLOCK
TLOCK
BLKCK
SOCK
SUBQ
TLOCK
FLOCK
SENSE
SERVO RST
REST SW
OPEN SW
S701 (REST)
S791 (OPEN)
+B


MN66271
IC702
PROCESSOR/DIGITAL SIGNAL PROCESSOR/
FILTER/D/A CONVERTER
Digital audio interface
S/P converter
Digital de-enphasis
Digital filter
MASH logic
PWM logic
DVDD1
AVDD2
AVDD1
VDD
DVSS1
AVSS1
AVSS2
VSS
TX
OUTL
OUTR
LRCK
BCLK
SR DATA
X2
X1
X701
Timing generator
SMCK
Microcomputer interface
BLKCK
SQCK
SUBQ
DMUTE
STAT
MDATA
MCLK
MLD
BA4558FT1
IC801
L.P. FILTER AMP
TC4066BFTP1
IC802
SWITCHING
Q10
Switching control
JK801
L ch
R ch
DATA
CLK
DC.GND
A.GND
AC
CT
AC
LA5608M
IC602
BUS LINE DRIVE/RESET/HALT
Standard voltage
LC66304A4935
IC401
SYSTEM CONTROL
OSC1
VDD
RST
D403
D401
CD POWER
SEND
RECV
DATA 3
DATA 2
DATA 1
DATA 0
CLK
ACK
X601
VP
GND
CD
XIN
XOUT
BSCK O
BSCK I
BSDT O
BSDT I
HALT
M38112M4100F
IC601
SYSTEM CONTROL/FL DRIVE
KIN3 ~ KIN0
KS0 ~ KS3
S1 ~ S16
G10 ~ G1
NU2
NU1
KEY MATRIX
S601 ~ 613
FL DISPLAY
FL601
RST
REST SW
OPEN SW
CLOSE SW
OPEN
CLOSE
VSS
S701 (REST)
S791 (OPEN)
S790 (CLOSE)
Vcc
Vcc
VS
VREF
GND
TA7921S
IC790
MOTOR DRIVE
LOADING MOTOR
M
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D10
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LM2940T5M
IC1
Regulator
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Q8, D16
Q9, D17
D5
Q1, D12
D13
PT1

■ REPLACEMENT PARTS LIST

Notes: •Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
•The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
•Warning: This product uses a diode. Refer to caution statements on page 2.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	LM2940T5	I. C, REGULATOR	
IC401	LC66304A4935	I. C, SYSTEM CONTROL	
IC601	M38112M4100F	I. C, FL DRIVE/SYSTEM CONT,	
IC602	LA5608M-TE-L	I. C, BUS LINE/HALT/RESET	
IC790	TA7291S	I. C, MOTOR DRIVE	
IC801	SVIBA4558F	I. C, L. P. F. AMP.	
IC802	TC4066BFTP1	I. C, SWITCHING	
		INTEGRATED CIRCUIT(S)	
		(SERVO SCHEMATIC DIAGRAM)	
IC701	AN8802SCE1V	I. C, SERVO AMP.	
IC702	MN66271	I. C, SERVO PROCESSOR	
IC703	AN8389SE1	I. C, MOTOR DRIVE	
		TRANSISTOR(S)	
Q1	2SB1238QSTV6	TRANSISTOR	
Q3-5	2SD2037EFTA	TRANSISTOR	
Q8	2SC3311A-Q	TRANSISTOR	
Q9	2SA1309A-R	TRANSISTOR	
Q10	UN4112	TRANSISTOR	
		TRANSISTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
Q701	2SB709S	TRANSISTOR	
		DIODE(S)	
D1, 2	MA167	DIODE	
D3-5	1SR35200TB	DIODE	⚠
D6	MA165	DIODE	
D8	MA165	DIODE	
D10	MA4051MTA	DIODE	
D12	MA4300M	DIODE	
D13	MA185TA	DIODE	
D14	MA4082LTA	DIODE	
D16, 17	MA4056MTA	DIODE	
D18	1SR35200TB	DIODE	⚠
D401	MA165	DIODE	
D403	MA165	DIODE	
D602-605	MA165	DIODE	
D606	MA4075MTA	DIODE	

Ref. No.	Part No.	Part Name & Description	Remarks
		VARIABLE RESISTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
VR701	EVNDXAA00B14	V. R, BEST EYE ADJ.	
		COIL(S)	
L3, 4	ELEXT3R3KA9	COIL	
L601	ELEXT100KA9	COIL	
		OSCILLATOR(S)	
X601	RSXY4M23M01T	OSCILLATOR	
		OSCILLATOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
X701	RSXZ16M9M02T	OSCILLATOR	
		DISPLAY	
FL601	RSL0127-F	FL DISPLAY	⚠
		SWITCH(ES)	
S601	EVQ21405R	SW, R. SKIP	
S602	EVQ21405R	SW, F. SKIP	
S603	EVQ21405R	SW, REPEAT	
S604	EVQ21405R	SW, RANDOM	
S605	EVQ21405R	SW, LAST FADE	
S606	EVQ21405R	SW, ALBUM	
S607	EVQ21405R	SW, J. FIT	
S608	EVQ21405R	SW, OPEN/CLOSE	
S609	EVQ21405R	SW, R. SEARCH	
S610	EVQ21405R	SW, F. SEARCH	
S611	EVQ21405R	SW, STOP	
S612	EVQ21405R	SW, PAUSE	
S613	EVQ21405R	SW, PLAY	
S790	RSH1A005	SW, LOADING CLOSE DETECT	
S791	RSH1A005	SW, LOADING OPEN DETECT	
		SWITCH(ES)	
		(SERVO SCHEMATIC DIAGRAM)	
S701	RSM0006-P	SW, REST	

Ref. No.	Part No.	Part Name & Description	Remarks
		CONNECTOR(S)	
CN401	RJT029W06VT	CONNECTOR(6P)	
CN402	RJS1A6823	SOCKET(23P)	
CN601	RJS1A6823	SOCKET(23P)	
CN602	SJS50581BB	SOCKET(5P)	
CP601	RJS1A6823	SOCKET(23P)	
CP602	SJT30549BB1	CONNECTOR(5P)	
CP790	RJP6G17ZA	CONNECTOR(6P)	
		CONNECTOR(S)	
		(SERVO SCHEMATIC DIAGRAM)	
CN701	RJU035T016-1	SOCKET(16P)	
CN702	RJS1A6723-1Q	SOCKET(23P)	
		EARTH TERMINAL(S)	
E1	SNE1004-1	GND PLATE	
		TRANSFORMER(S)	
PT1	RTP1I4G003	POWER TRANSFORMER	⚠
		JACK(S)	
JK801	RJT065K15	CONNECTOR(15P)	
		TEST JUMPER(S)	
		(SERVO SCHEMATIC DIAGRAM)	
TJ701	RRJ8GET001H	TEST JUMPER	
TJ702	RRJ8GET001H	TEST JUMPER	

Notes : * Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

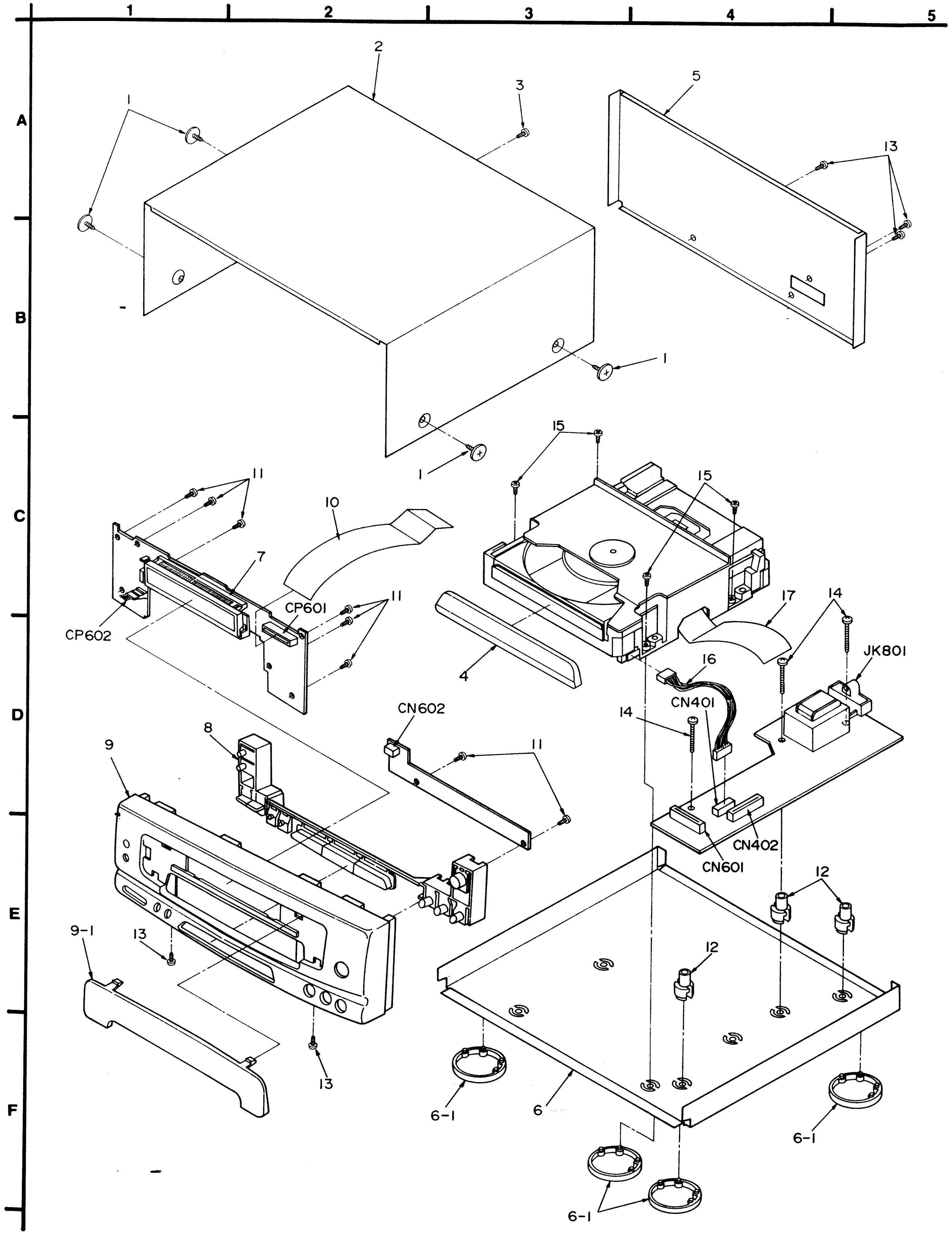
Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1,2	ERDS2TJ562	1/4W 5.6K
R3	ERDS2TJ472	1/4W 4.7K
R5	ERQ16NKWR15E	1W 0.15
R7	ERDS2TJ562	1/4W 5.6K
R8	ERDS2TJ8R2T	1/4W 8.2 ⚠
R9	ERDS2TJ6R8	1/4W 6.8 ⚠
R11	ERDS2TJ1R2	1/4W 1.2
R12	ERDS1FVJ271T	1/2W 270 ⚠
R13	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R19	ERDS2TJ332	1/4W 3.3K
R20	ERD2FCVJ6R8T	1/4W 6.8 ⚠
R21	ERDS2TJ103	1/4W 10K
R22	ERDS2TJ332	1/4W 3.3K
R23	ERDS2EJ121	1/4W 120
R24	ERDS2TJ471	1/4W 470
R26,27	ERDS2TJ1R2	1/4W 1.2
R401-409	ERDS2TJ472	1/4W 4.7K
R410	ERDS2TJ102	1/4W 1K
R411	ERDS2TJ472	1/4W 4.7K
R412,413	ERDS2TJ103	1/4W 10K
R414	ERDS2TJ102	1/4W 1K
R415	ERDS2TJ560T	1/4W 56
R416	ERDS2TJ104	1/4W 100K
R419	ERDS2TJ472	1/4W 4.7K
R601-604	ERDS2TJ473	1/4W 47K
R605	ERDS2TJ102	1/4W 1K
R606	ERDS2TJ104	1/4W 100K
R607	ERDS2TJ103	1/4W 10K
R608,609	ERDS2TJ102	1/4W 1K
R610-617	ERDS2TJ221	1/4W 220
R631	ERDS2TJ101	1/4W 100
R632,633	ERDS2TJ472	1/4W 4.7K
R634	ERDS2TJ8R2T	1/4W 8.2 ⚠
R635,636	ERDS2EJ121	1/4W 120
R637	ERDS2TJ470	1/4W 47
R801,802	ERDS2TJ104	1/4W 100K
R803-806	ERDS2TJ223	1/4W 22K
R807,808	ERDS2TJ273	1/4W 27K
R809,810	ERDS2TJ332	1/4W 3.3K
R811-814	ERDS2TJ104	1/4W 100K
R815,816	ERDS2TJ102	1/4W 1K
		RESISTORS
		SERVO SCHEMATIC DIAGRAM
R701	ERJ6GEYJ100	1/10W 10

Ref. No.	Part No.	Values & Remarks
R702	ERJ6GEYJ471V	1/10W 470
R703	ERJ6GEYJ823	1/10W 82K
R704	ERJ6GEYJ102A	1/10W 1K
R705	ERJ6GEYJ103V	1/10W 10K
R706	ERJ6GEYJ102A	1/10W 1K
R707	ERJ6GEYJ473V	1/10W 47K
R708	ERJ6GEYJ224V	1/10W 220K
R709	ERJ6GEYJ683V	1/10W 68K
R711	ERJ6GEYJ154V	1/10W 150K
R712	ERJ6GEYJ471V	1/10W 470
R714	ERJ6GEY0R00A	1/10W 0.00
R717-720	ERJ6GEYJ102A	1/10W 1K
R721	ERJ8GEYJ101V	1/8W 100
R722	ERJ6GEYJ473V	1/10W 47K
R723	ERJ6GEYJ182V	1/10W 1.8K
R724	ERJ6GEYJ333V	1/10W 33K
R725	ERJ6GEYJ472V	1/10W 4.7K
R726	ERJ6GEYJ473V	1/10W 47K
R727	ERJ6GEYJ103V	1/10W 10K
R728	ERJ6GEYJ392V	1/10W 3.9K
R730	ERJ6GEYJ331V	1/10W 330
R731	ERJ6GEYJ392V	1/10W 3.9K
R734-736	ERJ6GEYJ101V	1/10W 100
R738	ERJ6GEYJ223V	1/10W 22K
R739	ERJ6GEYJ681V	1/10W 680
R741-743	ERJ6GEYJ562V	1/10W 5.6K
R744	ERJ6GEYJ103V	1/10W 10K
R745	ERJ6GEYJ155V	1/10W 1.5M
R746	ERJ8GEYJ103V	1/8W 10K
R747	ERJ6GEYJ473V	1/10W 47K
		CHIP JUMPERS
		SERVO SCHEMATIC DIAGRAM
RJ701	ERJ8GEY0R00A	1/10W 0
RJ702	ERJ8GEY0R00A	1/10W 0
RJ703	ERJ8GEY0R00A	1/10W 0
RJ704	ERJ8GEY0R00A	1/10W 0
RJ705	ERJ8GEY0R00A	1/10W 0
RJ706	ERJ8GEY0R00A	1/10W 0
RJ707	ERJ8GEY0R00A	1/10W 0
RJ708	ERJ8GEY0R00A	1/10W 0
RJ709	ERJ8GEY0R00A	1/10W 0
RJ710	ERJ8GEY0R00A	1/10W 0
RJ711	ERJ8GEY0R00A	1/10W 0
RJ712	ERJ8GEY0R00A	1/10W 0
RJ713	ERJ8GEY0R00A	1/10W 0
RJ714	ERJ8GEY0R00A	1/10W 0
RJ715	ERJ8GEY0R00A	1/10W 0

Ref. No.	Part No.	Values & Remarks
RJ716	ERJ8GEY0R00A	1/10W 0
RJ717	ERJ8GEY0R00A	1/10W 0
RJ721	ERJ6GEY0R00A	1/10W 0
RJ722	ERJ6GEY0R00A	1/10W 0
RJ724	ERJ6GEY0R00A	1/10W 0
RJ725	ERJ6GEY0R00A	1/10W 0
RJ726	ERJ6GEY0R00A	1/10W 0
		CAPACITORS
C1	ECA1CM222B	16V 2200U
C2	ECA1EM101B	25V 100U
C3,4	ECBT1E103ZF	25V 0.01U ⚠
C5	ECBT1H102KB5	50V 1000P
C6	ECA1HM101B	50V 100U
C7	ECKR2H102ZF5	500V 1000P
C8	ECEA0JKA221B	6.3V 220U
C10	ECEA1AKA221Q	10V 220U
C11	ECBT1H102KB5	50V 1000P
C12	ECEA1AKA101B	10V 100U
C16	ECEA0JKA470B	6.3V 47U
C17	ECBT1H102KB5	50V 1000P
C18-20	ECEA0JKA470B	6.3V 47U
C21	ECBT1H102KB5	50V 1000P
C401	ECBT1H104ZF5	50V 0.1U
C402,403	ECBT1H102KB5	50V 1000P
C404	ECBT1E103ZF	25V 0.01U
C405	ECBT1H102KB5	50V 1000P
C406	ECBT1E103ZF	25V 0.01U
C601	ECBT1H104ZF5	50V 0.1U
C602,603	ECEA1HKA3R3B	50V 3.3U ⚠
C604	ECEA0JKS470	6.3V 47U
C605	ECBT1H102KB5	50V 1000P
C606	ECBT1E103ZF	25V 0.01U
C608,609	ECBT1E103ZF	25V 0.01U
C610	ECEA1HKAR22B	50V 0.22U
C611	ECEA1HKAR33B	50V 0.33U
C612	ECBT1E223ZF	25V 0.022U
C613	ECBT1E103ZF	25V 0.01U
C790	ECA1AKF820E	10V 82U
C801,802	ECBT1H331KB5	50V 330P
C803,804	ECBT1H121KB5	50V 120P
C805,806	ECEA1EKA220B	25V 22U
C807,808	ECBT1H101KB5	50V 100P
C790	ECA1AKF820E	10V 82U
		CAPACITORS
		SERVO SCHEMATIC DIAGRAM

Ref. No.	Part No.	Values & Remarks
C701	ECEA0JKA220	6.3V 22U
C702	ECEA1HKA010I	50V 1U
C703	ECEA0JKA101I	6.3V 100U
C704	ECUZ1E104MBN	25V 0.1U
C705	ECEA1HKA010I	50V 1U
C706	ECUE1H101JCN	50V 100P
C707	ECUV1E273KBN	25V 0.027U
C708	ECUE1H472KBN	50V 4700P
C709	ECUE1C473KBN	16V 0.047U
C710	ECUE1H152KBN	50V 1500P
C711,712	ECUZ1E104MBN	25V 0.1U
C713	ECUV1C104MBM	16V 0.1U
C714	ECEA0JKA101I	6.3V 100U
C715	ECEA0JKA470I	6.3V 47U
C716	ECUE1H561KBN	50V 560P
C717	ECUZ1E104MBN	25V 0.1U
C718,719	ECUV1C224KBM	16V 0.22U
C721,722	ECUE1H100DCN	50V 10P
C723	ECEA1AKA221I	10V 220U
C724	ECUV1C104MBM	16V 0.1U
C725,726	ECUE1H102KBN	50V 1000P
C727,728	ECEA1HKA010I	50V 1U
C730	ECUZ1E104MBN	25V 0.1U
C731,732	ECA05SD151I	6.3V 150U
C733	ECUZ1E104MBN	25V 0.1U
C734	ECEA1AKA221I	10V 220U
C735-737	ECUZ1E104MBN	25V 0.1U
C738	ECUV1C154KBN	16V 0.15U
C742	ECUV1E273KBN	25V 0.027U
C743	ECUZ1E104MBN	25V 0.1U
C744	ECUE1E822KBN	25V 8200P
C745	ECUE1C473MBN	16V 0.047U
C746	ECUE1H050DCN	50V 5P
C747	ECUE1H222KBN	50V 2200P
C748	ECUV1H271KBM	50V 270P

■ CABINET PARTS LOCATION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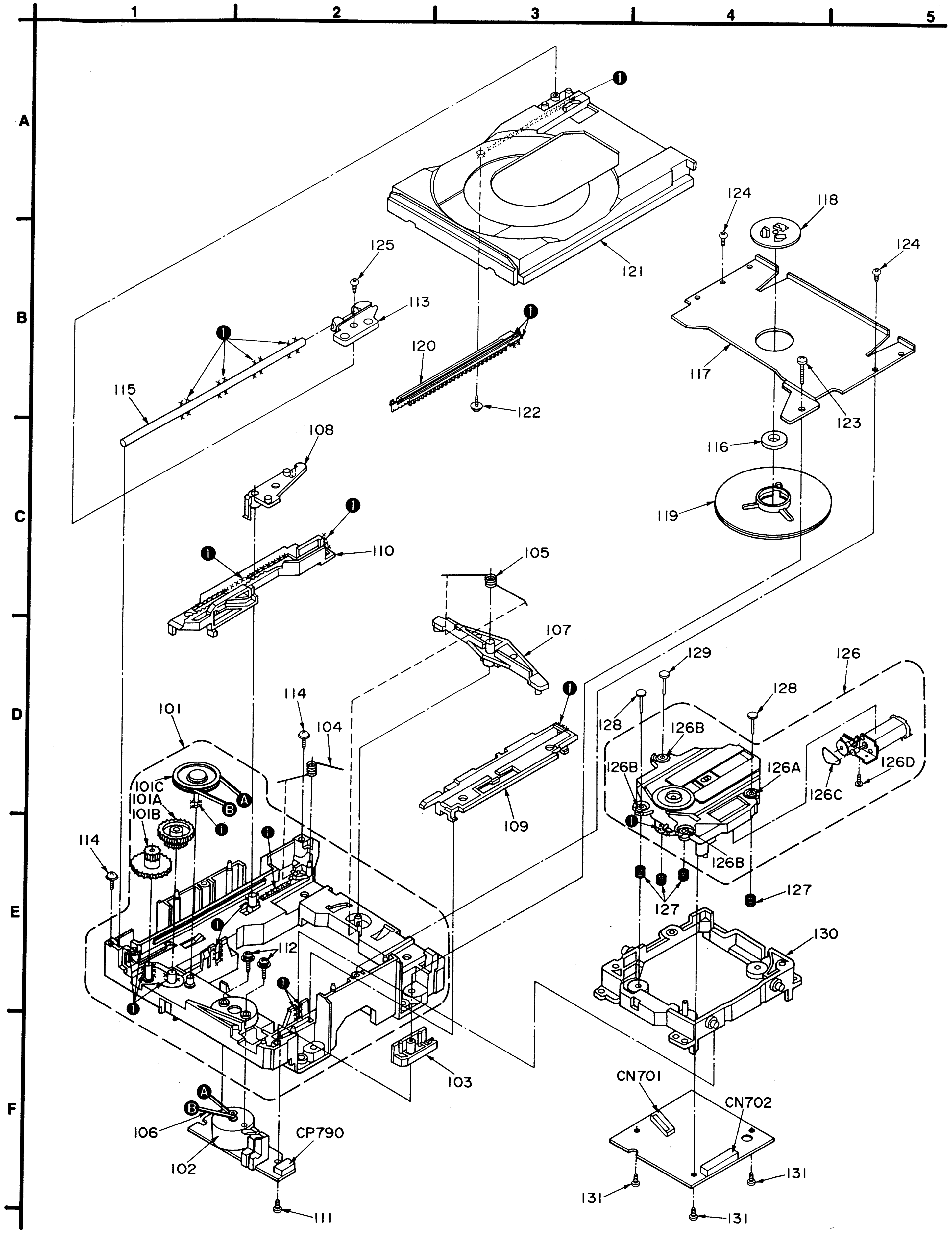
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0203-1K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	RGK0479-K	TRAY PANEL	
5	RGR0146A-C	REAR PANEL	
6	RFKJLCH550NK	BOTTOM BOARD ASS'Y	
6-1	RKA0055-N	FOOT	
7	RMN0182-1	FL HOLDER	
8	RGU0761-K	OPERATION BUTTON	
9	RFKGLCH550EK	FRONT PANEL ASS'Y	
9-1	RKW0222-K	FL PANEL	
10	RWJ5423130EE	FLEXIBLE CABLE(23P)	
11	XTBS26+8J	SCREW	
12	SHE185-2	P.C.B. SPACER	
13	XTBS3+8JFZ1	SCREW	
14	XTB3+16JFZ	SCREW	
15	XTB3+8FFZ	SCREW	
16	REX0354	LEAD CABLE(6P)	
17	REZ0537	FLEXIBLE CABLE(23P)	

Ref. No.	Part No.	Part Name & Description	Remarks

Ref. No.	Part No.	Part Name & Description	Remarks
		LOADING PARTS	
101	RFKJLPG440BK	CHASSIS ASS'Y	
101A	RDG0142	LOADING GEAR	
101B	RDG0193	LOADING GEAR(1)	
101C	RDP0041	PULLEY	
102	REM0019	MOTOR ASS'Y	
103	RMA0339	HOLDER	
104	RME0063	LOCK LEVER SPRING	
105	RME0087	SPRING	
106	RMG0158	BELT	
107	RML0177	CONVERSION LEVER	
108	RML0178-1	LOCK LEVER	
109	RMM0059-1	SLIDE PLATE(2)	
110	RMM0079	SLIDE PLATE(1)	
111	XTN26+6G	SCREW	
112	XYN2+F6FZ	SCREW	
113	RDB0036	GUIDE HOLDER	
114	RHD20010	SCREW	
115	RMU0046	GUIDE SHAFT	
116	RHM245ZA	MAGNET	
117	RMA0327-1	DISC CLAMPER	
118	RMR0334	MAGNET HOLDER	
119	RXQ0123	DISC HOLDER	
120	RFKNLPG440-K	DRIVE RACK ASS'Y	
121	RGQ0088-K	DISC TRAY	
122	RHD20009-1	SCREW	
123	XTB3+25GFZ	SCREW	
124	XTN26+6G	SCREW	
125	XTN3+8JFZ	SCREW	
126	RAE0111Z	TRAVERSE UNIT ASS'Y	
126A	SHGD112	RUBBER(A)	
126B	SHGD113-1	RUBBER(B)	
126C	RDV0023	BELT	
126D	SNSD38	SCREW	
127	RME0109	SPRING	
128	RMS0123-1	PIN(A)	
129	RMS0350	PIN(B)	
130	RMR0533-K	TRAVERSE CHASSIS	
131	XTV2+6G	SCREW	

■ LOADING UNIT PARTS LOCATION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Printed in Japan
F920811000HS/FF

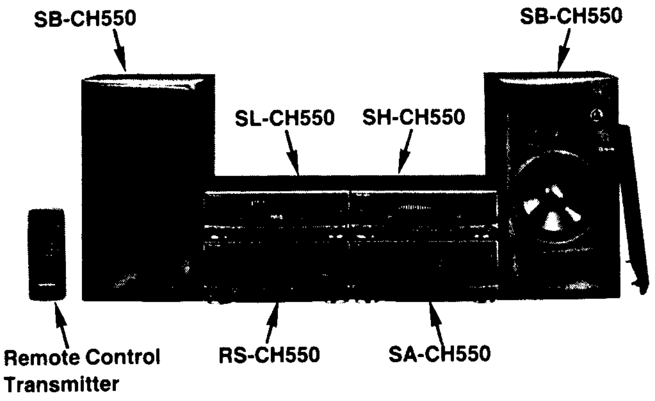
ORDER NO. AD9208267C8

Service Manual

Cassette Deck

RS-CH550

Cassette Deck * DOLBY B·C NR



Colour

(K) .... Black Type	

Areas

Suffix for Model No.	Area	Colour
(E)	Europe, Asia, Latin America, Middle Near East, Africa and Oceania	(K)

System: SC-CH550

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

■ RS-TR165 MECHANISM SERIES (AR300)

SPECIFICATIONS

Track system	Compact cassette stereo
Tape speed	4.8 cm/sec (1⅞ ips)
Bias frequency	80 kHz
Heads	
DECK 1 (playback)	Permalloy head
DECK 2 (record/playback)	Permalloy head
(erasure)	Double gap ferrite head
Motors	DC servo motor
Wow and flutter	0.1% (WRMS)
Fast forward and rewind time	Approx. 110 seconds with C-60 cassette tape
Frequency response	
NORMAL	30 Hz–16 kHz 40 Hz–15 kHz (DIN)
CrO_2	30 Hz–16 kHz 40 Hz–15 kHz (DIN)
METAL	30 Hz–17 kHz 40 Hz–16 kHz (DIN)
S/N (CrO_2 type tape)	
Dolby NR off	56 dB (A-WTD)
Dolby B NR on	66 dB (CCIR)
Dolby C NR on	74 dB (CCIR)

■ GENERAL

Dimensions (W×H×D)	270×119×264 mm
Weight	2.8 kg

Notes:

1. Specifications are subject to change without notice.
2. Weight and dimensions shown are approximate.
3. Total harmonic distortion is measured by the digital spectrum analyzer.

***Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.**
"Dolby" and thd double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

System	Sound processor	Tuner amplifier	Compact disc player	Cassette deck	Speakers
SC-CH550	SH-CH550	SA-CH550	SL-CH550	RS-CH550	*SB-CH550

***Europe area...Made in PAES.**

Technics

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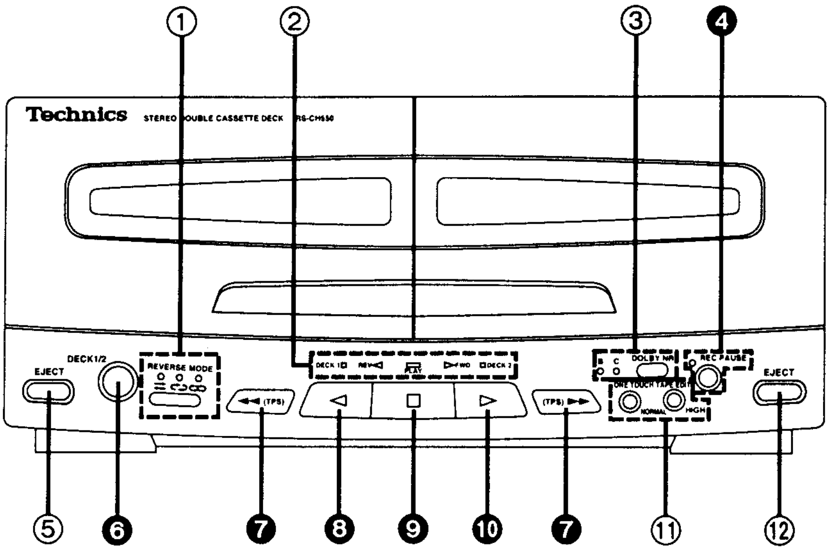
NOTE:
Refer to the service manual for Model No. SA-CH550, Order No. AD9208265C8 for information on ACCESSORIES, STACKING THE COMPONENTS, CONNECTIONS and PACKAGING.

■ LOCATION OF CONTROLS



① **Reverse mode select button and indicators (REVERSE MODE)**
Press to select the reverse mode (for playback and recording).

② **Indicators section**
Each indicator lights as follows.

DECK 1:	Lights to show you can operate the deck 1.
REV/FWD:	Lights to indicate the direction of the tape travel.
PLAY:	Lights when you play or record the cassette tape. Flashes when you quickly search for the beginning of a program while the tape is being played (TPS), or while in the recording standby mode.
DECK 2:	Lights to show you can operate the deck 2.

③ **Dolby noise reduction button and indicators (DOLBY NR, B, C)**
Press to reduce hissing noise on the tape. This system has both the Dolby B-type and Dolby C-type noise reduction.

❹ **Record standby/record pause button and indicator (REC PAUSE)**
Press to put deck 2 into the record standby mode.

⑤ **Deck 1 cassette eject button (EJECT)**
Press to open the deck 1 cassette holder.

❻ **Deck 1/deck 2 select button (DECK 1/2)**
Press to select the deck to be operated.

❼ **Fast-forward/rewind/tape program sensor (TPS) buttons [◀◀ (TPS), (TPS) ▶▶]**
Press to advance or rewind the tape, or to quickly search for the beginning of a program while the tape is being played.

❽ **Reverse-side playback button (◁)**
Press to start the playback or recording (deck 2) in the reverse direction.

❾ **Stop button (□)**
Press to stop the tape.

❿ **Forward-side playback button (▷)**
Press to start the playback or recording (deck 2) in the forward direction.

⑪ **One-touch tape edit buttons (NORMAL, HIGH)**
Press to start the tape-to-tape recording.

⑫ **Deck 2 cassette eject button (EJECT)**
Press to open the deck 2 cassette holder.

The functions indicated by the numbers with black background (for example ❹) can also be activated from the remote control.

■ DISASSEMBLY INSTRUCTIONS

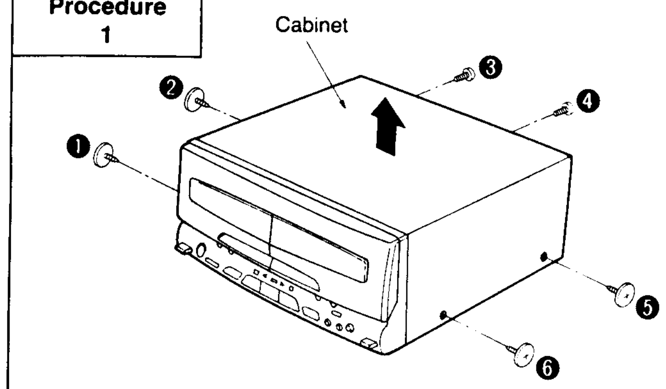
"ATTENTION SERVICER"

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1

Removal of the Cabinet

Procedure 1

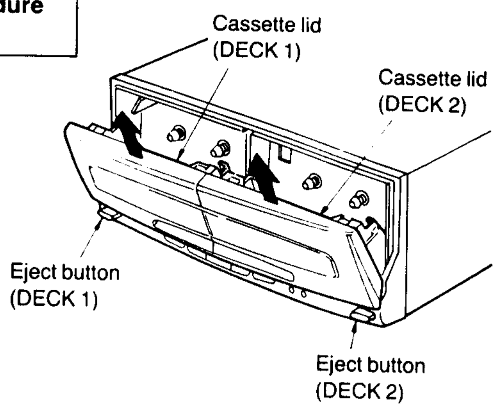

Cabinet
❶
❷
❸
❹
❺
❻

1. Remove the 6 screws (❶~❻).
2. Remove the cabinet in the direction of arrow.

Ref. No. 2

Removal of the Cassette Lid (DECK 1 and DECK 2)

Procedure 2

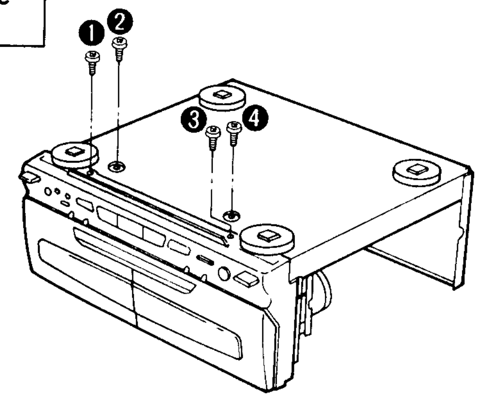

Cassette lid
(DECK 1)
Cassette lid
(DECK 2)
Eject button
(DECK 1)
Eject button
(DECK 2)

1. Press the eject button and open the cassette lid.
2. Remove the cassette lid in the direction of arrow.

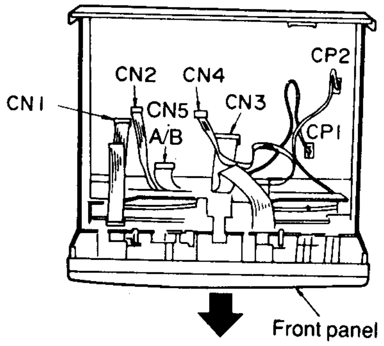
Ref. No. 3

Removal of the Front Panel

Procedure 1→3

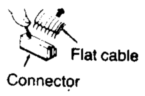


1. Remove the 4 screws (❶~❹).

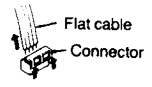

CN I
CN2
CN4
CN5
A/B
CN3
CP2
CPI
Front panel

2. Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B).
3. Remove the 2 connectors (CP1, CP2).
4. Remove the front panel in the direction of arrow.

•Push the top of the connector and then pull out the flat cable. (CN1, CN3)


Flat cable
Connector

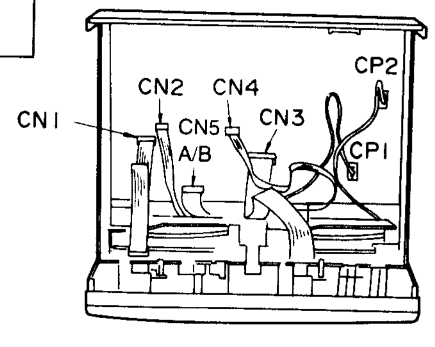
1. Lift up the connector.
2. Pull out the flat cable. (CN2, CN4, CN5 A/B)


Flat cable
Connector

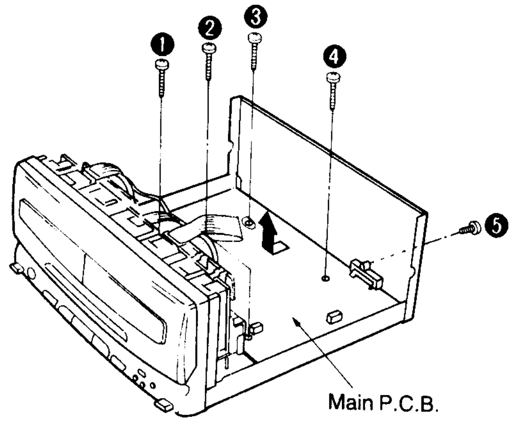
Ref. No. 4

Removal of the Main P.C.B.

Procedure 1→4


CN I
CN2
CN4
CN5
A/B
CN3
CP2
CPI

1. Remove the 5 flat cables (CN1, CN2, CN3, CN4, CN5 A/B).
2. Remove the 2 connectors (CP1, CP2).

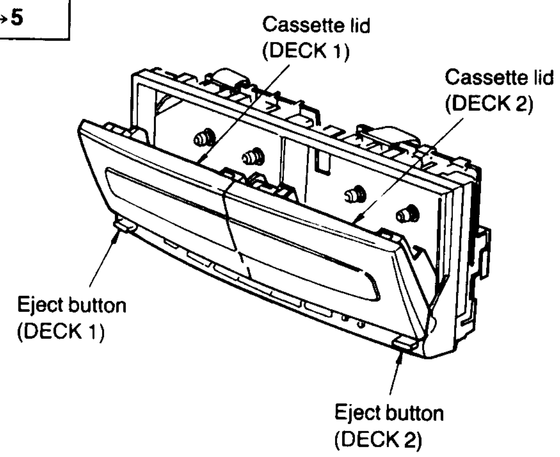

❶
❷
❸
❹
❺
Main P.C.B.

3. Remove the 5 screws (❶~❺).
4. Remove the main P.C.B. in the direction of arrow.

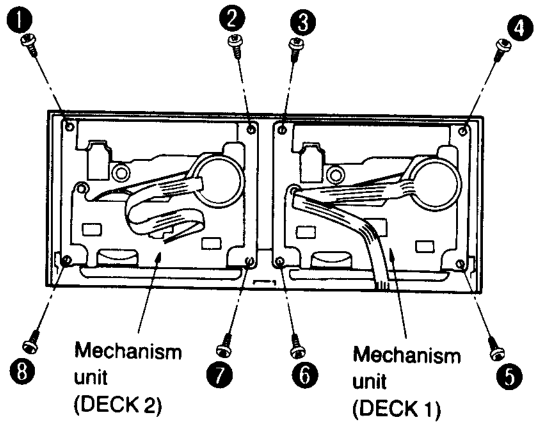
Ref. No. 5

Removal of the Mechanism Unit (DECK 1 and DECK 2)

Procedure 1→3→5


Cassette lid
(DECK 1)
Cassette lid
(DECK 2)
Eject button
(DECK 1)
Eject button
(DECK 2)

1. Press the eject button and open the cassette lid.

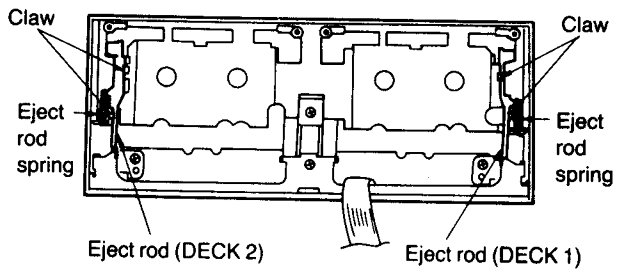

❶
❷
❸
❹
❽
Mechanism
unit
(DECK 2)
❼
❻
Mechanism
unit
(DECK 1)
❺

2. Remove the 8 screws (❶~❽).

Ref. No. 6

Removal of the Eject Rod (DECK 1 and DECK 2)

Procedure 1→3→5→6

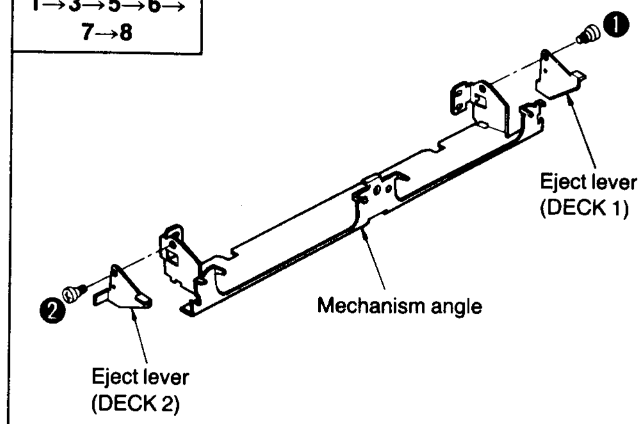

Claw
Claw
Eject
rod
spring
Eject
rod
spring
Eject rod (DECK 2)
Eject rod (DECK 1)

1. Remove the eject rod spring.
2. Release the 4 claws.

Ref. No. 8

Removal of the Eject Lever (DECK 1 and DECK 2)

Procedure 1→3→5→6→7→8

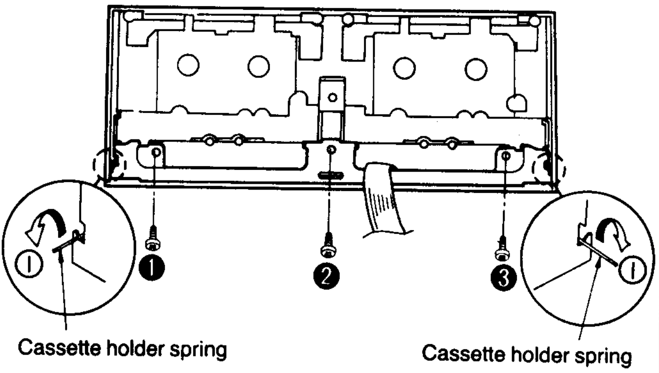

❶
Eject lever
(DECK 1)
Mechanism angle
❷
Eject lever
(DECK 2)

•Remove the 2 screws (❶, ❷).

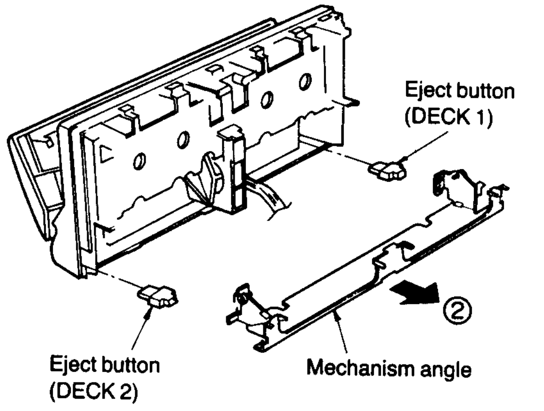
Ref. No. 7

Removal of the Mechanism Angle

Procedure 1→3→5→6→7


①
❶
❷
❸
①
Cassette holder spring
Cassette holder spring

1. Remove the cassette holder spring in the direction of arrow ① (DECK 1 and DECK 2).
2. Remove the 3 screws (❶~❸).


Eject button
(DECK 1)
②
Eject button
(DECK 2)
Mechanism angle

3. Remove the mechanism angle in the direction of arrow ②.
4. Remove the eject button (DECK 1 and DECK 2).

sm Angle

lder spring

of arrow

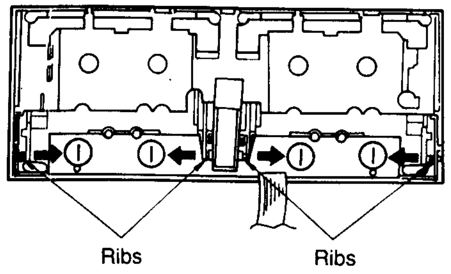
tton
1)

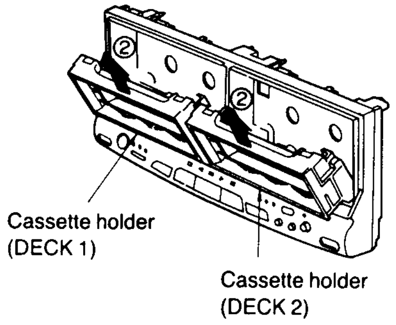
ow ②.

Ref. No. 9

Removal of the Cassette Holder (DECK 1 and Deck 2)

Procedure
1→2→4→5→6→7→9


①
①
①
①
Ribs
Ribs

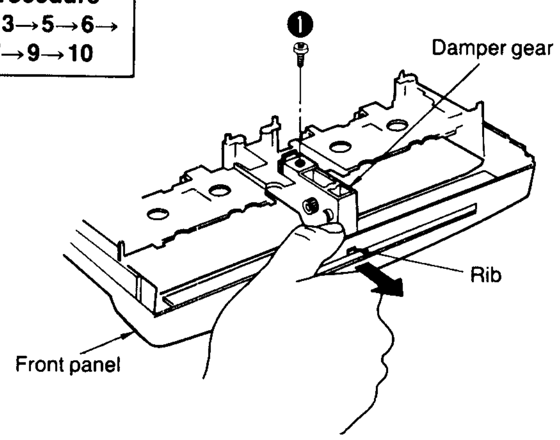

②
②
Cassette holder (DECK 1)
Cassette holder (DECK 2)

1. Remove the ribs in the direction of arrow ①.
2. Remove the cassette holder in the direction of arrow ②.

Ref. No. 10

Removal of the Damper Gear

Procedure
1→3→5→6→7→9→10

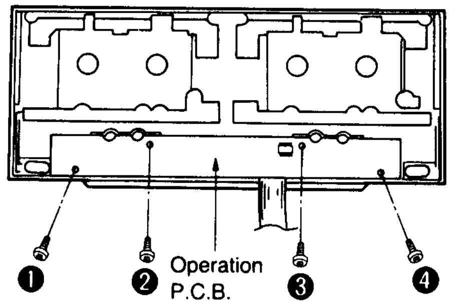

❶
Damper gear
Rib
Front panel

1. Remove the 1 screw (❶).
2. Remove the damper gear's rib by holding the bottom and center of the front panel pressed slightly in the direction of the arrow.

Ref. No. 11

Removal of the Operation P.C.B.

Procedure
1→3→5→6→7→9→10→11


❶
❷
Operation P.C.B.
❸
❹

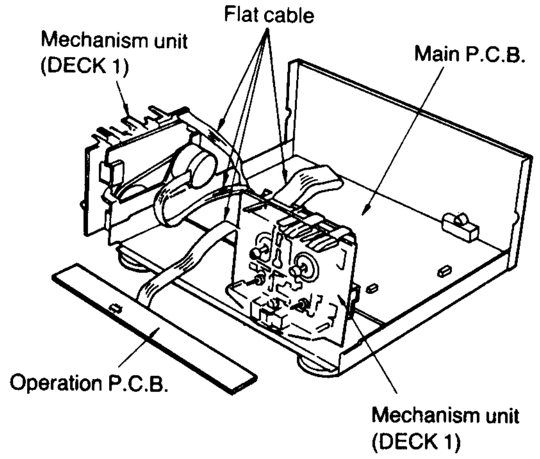
- Remove the 4 screws (❶~❹).

Ref. No. 12

How to check the Operation P.C.B.

Procedure
1→3→5→6→7→9→10→11→12

- When checking the soldered surfaces of operation P.C.B. and replacing the parts, do as show.

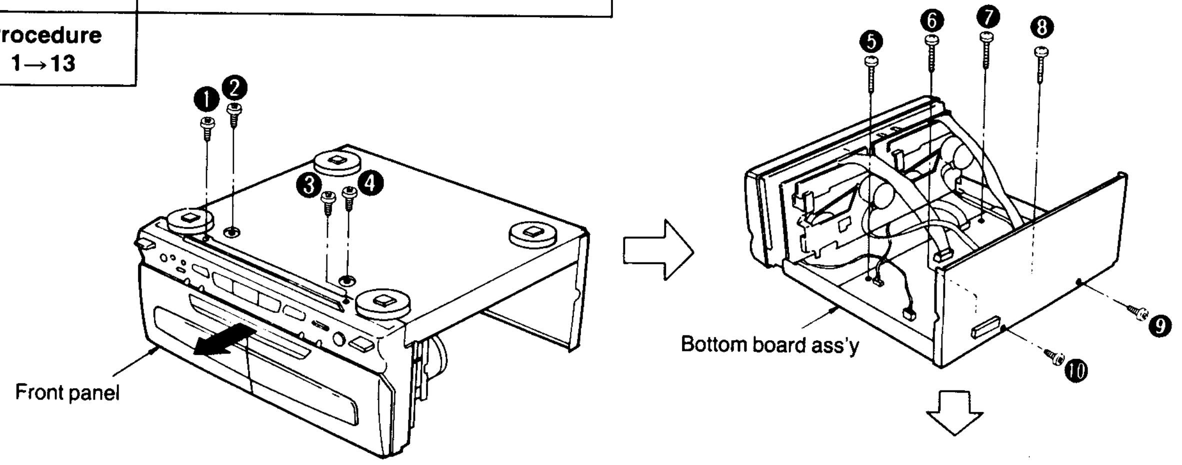

Mechanism unit (DECK 1)
Flat cable
Main P.C.B.
Operation P.C.B.
Mechanism unit (DECK 1)

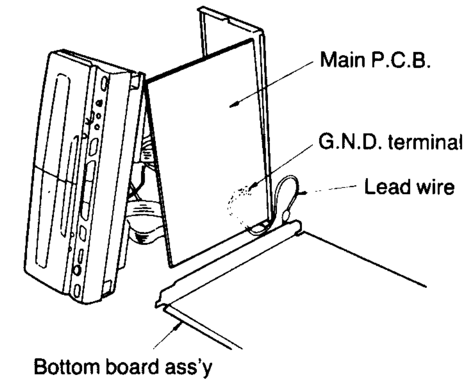
1. Connect the flat cables and connectors of the mechanism units (DECK 1 and DECK 2) to the corresponding connectors (CN1, CN2, CN3, and CN4) on the main P.C.B. (Refer to page 15.)
2. Connect the flat cable on the operation P.C.B. to the connector (CN5 A/B) on the main P.C.B. (Refer to page 15.)

Ref. No. 13

How to check the Main P.C.B.

Procedure
1→13

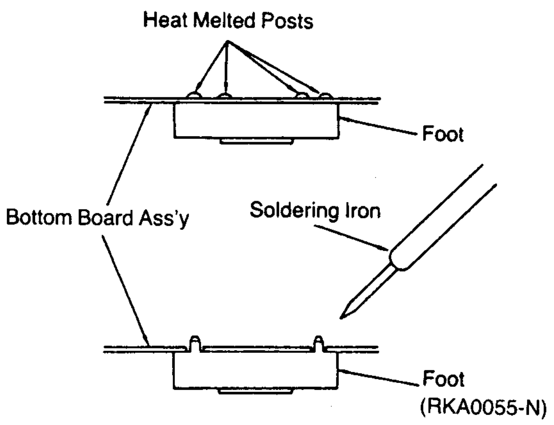

❶❷
❸❹
Front panel
❺
❻
❼
❽
Bottom board ass'y
❾
❿


Main P.C.B.
G.N.D. terminal
Lead wire
Bottom board ass'y

- When checking the soldered surfaces of mains P.C.B. and replacing the parts, do as show.
  1. Remove the 4 screws (❶~❹).
  2. Remove the front panel in the direction of arrow.
  3. Remove the 6 screws (❺~❿).
  4. Remove the bottom board ass'y.
  5. Connect the GND terminal to the bottom board ass'y by the lead wire.

• Replacement of the Foot.

1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot (RKA0055-N) on the Bottom board ass'y, melt the 4 posts with a soldering iron.


Heat Melted Posts
Foot
Bottom Board Ass'y
Soldering Iron
Foot (RKA0055-N)

Notes:

•S900	Stop switch (□)
•S901	Fast-forward/TPS switch (TPS/▶▶)
•S902	Fast-rewind/TPS switch (◀◀/TPS)
•S903	Forward side playback switch (▶)
•S904	Reverse side playback switch (◀)
•S905	Record/record standby switch (REC PAUSE)
•S906	Deck select switch (DECK 1/2)
•S907	One touch tape edit switch (NORMAL)
•S908	One touch tape edit switch (HIGH)
•S909	Dolby noise reduction switch (DOLBY NR, B, C)
•S910	Reverse mode select switch (REVERSE MODE)
•S951	Mode detect switch (Deck 1)
•S952	Half detect switch (Deck 1)
•S953	CrO₂ tape detect switch (Deck 1)
•S971	Mode detect switch (Deck 2)
•S972	Half detect switch (Deck 2)
•S973	Reverse side record prevention tab detect switch (Deck 2)
•S974	Forward side record prevention tab detect switch (Deck 2)
•S975	CrO₂ tape detect switch (Deck 2)
•S976	METAL tape detect switch (Deck 2)

•Indicated voltage valuse are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark…Playback ( )…Recording

•Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

•This schematic diagram may be modified at any time with the development of new technology.

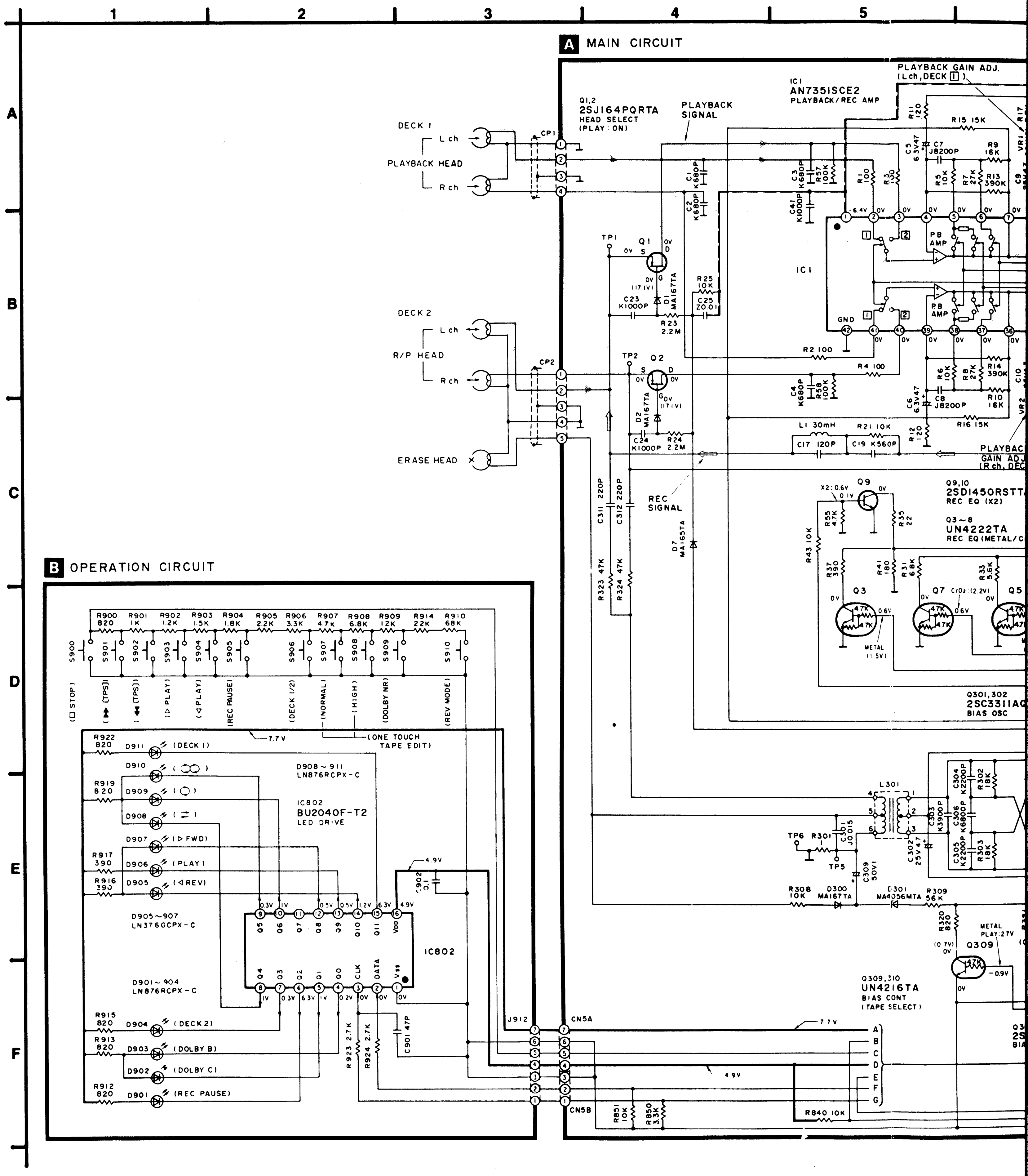
Caution!
- •IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
- •Cover the parts boxes made of plastics with aluminum foil.
- •Ground the soldering iron.
- •Put a conductive mat on the work table.
- •Do not touch the legs of IC or LSI with the fingers directly.

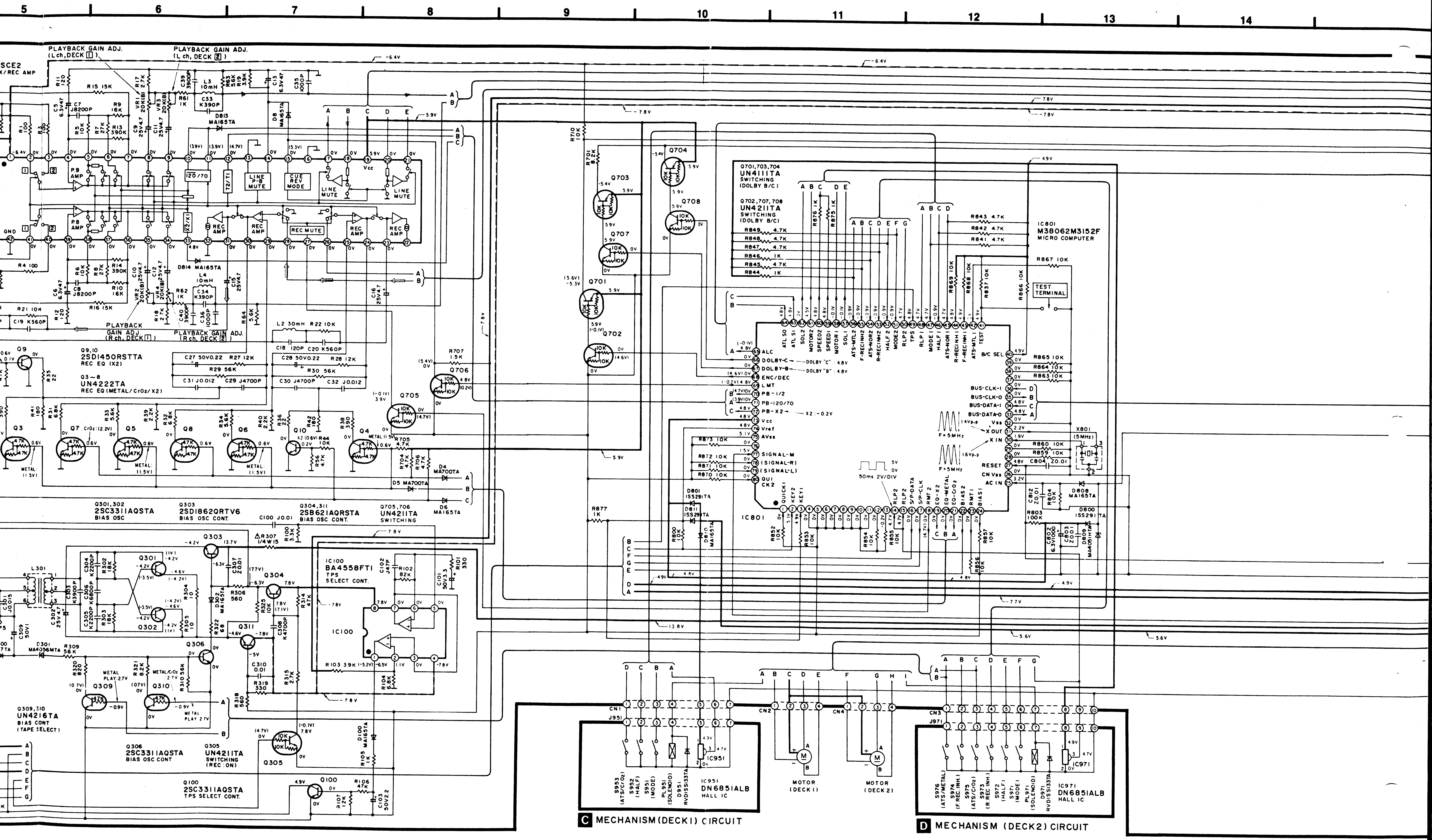
•The supply part number is described alone in the replacement parts list.

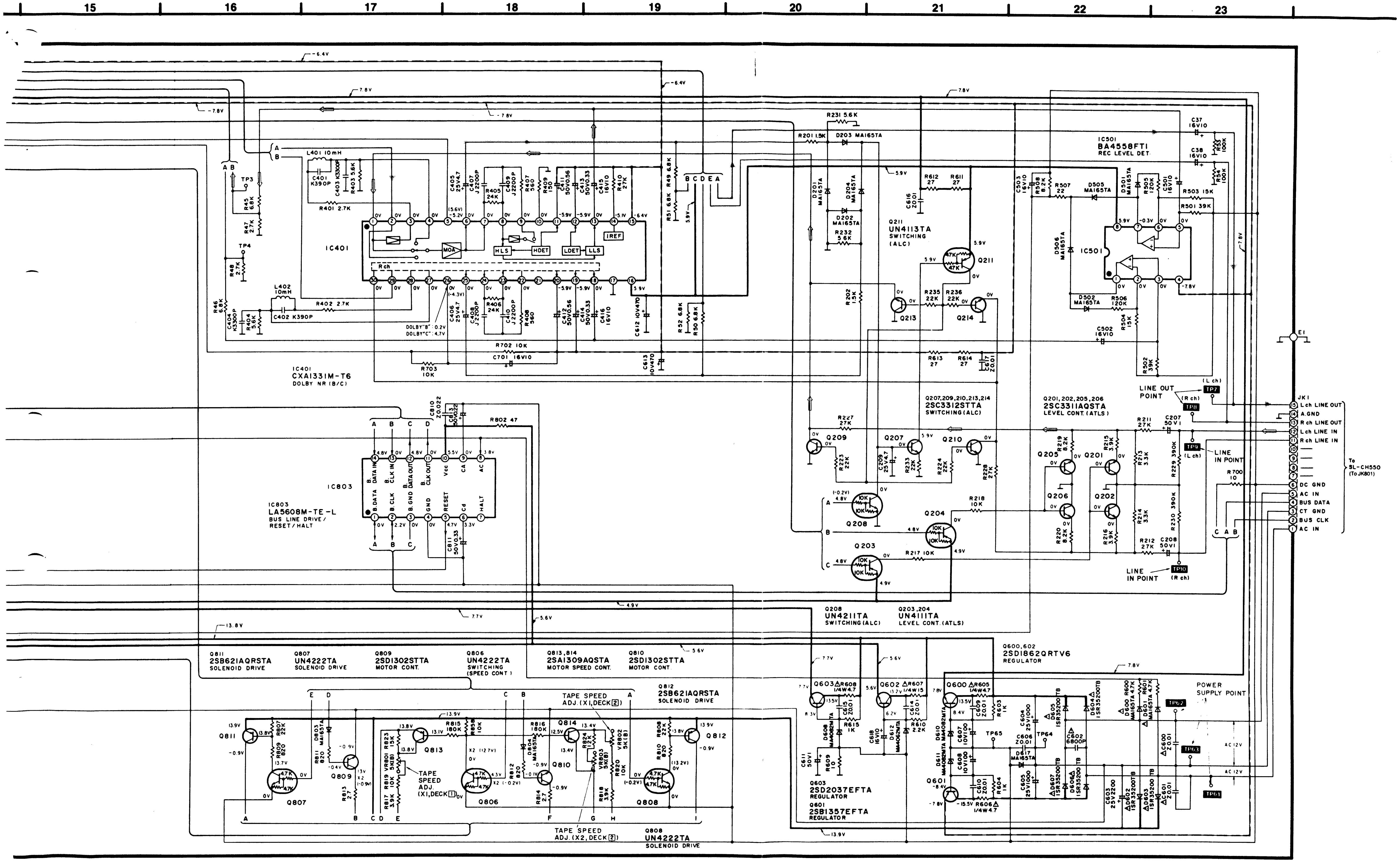
Ref. No.	Production Parts No.	Supply Parts No.
IC100 IC501	BA4558FT1	SVIBA4558F

———— : Positive Voltage Line
- - - - : Negative Voltage Line
▨⇨ : Playback Signal Line
⇨ : Recording Signal Line

■ SCHEMATIC DIAGRAM •MAIN AND OPERATION CIRCUIT (Parts list on pages 21~24.)

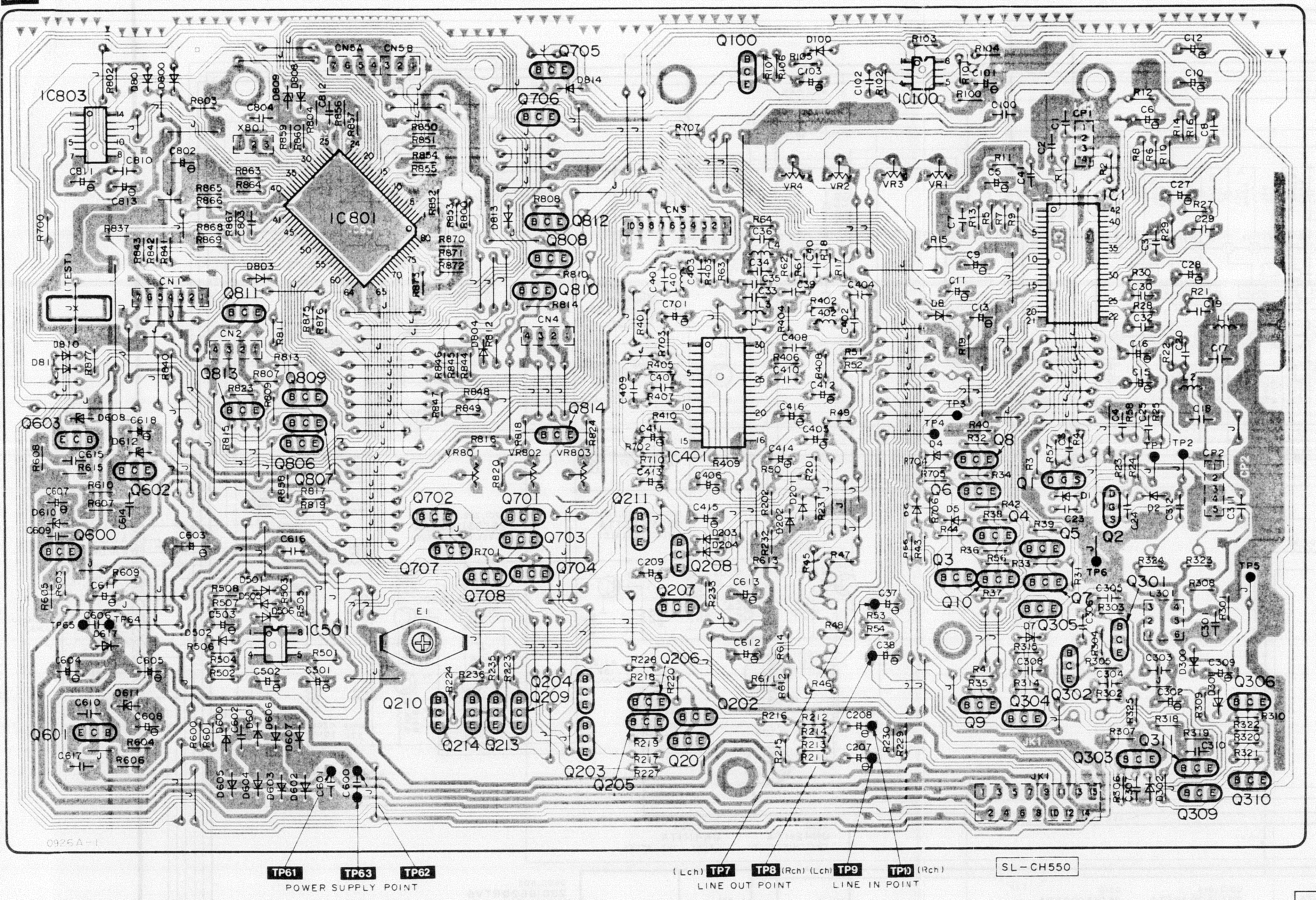

1
2
3
4
5
A
B
C
D
E
F
A MAIN CIRCUIT
B OPERATION CIRCUIT
DECK 1
PLAYBACK HEAD
L ch
R ch
DECK 2
R/P HEAD
ERASE HEAD
CP1
CP2
Q1,2 2SJ164PQRTA HEAD SELECT (PLAY: ON)
PLAYBACK SIGNAL
REC SIGNAL
IC1 AN7351SCE2 PLAYBACK/REC AMP
PLAYBACK GAIN ADJ. (Lch, DECK 1)
PB AMP
Q9,10 2SD1450RSTT
REC EQ (X2)
Q3~8 UN4222TA
REC EQ (METAL/C
Q301,302 2SC3311AC
BIAS OSC
Q309,310 UN4216TA
BIAS CONT (TAPE SELECT)
L301
CN5A
CN5B
J912
IC802 BU2040F-T2 LED DRIVE
D908~911 LN876RCPX-C
D905~907 LN376GCPX-C
D901~904 LN876RCPX-C
(DECK 1)
(DECK 2)
(PLAY)
(REV)
(FWD)
(DOLBY B)
(DOLBY C)
(REC PAUSE)
(ONE TOUCH TAPE EDIT)
(□ STOP)
(▶▶ (TPS))
(◀◀ (TPS))
(▷ PLAY)
(◁ PLAY)
(REC PAUSE)
(DECK 1/2)
(NORMAL)
(HIGH)
(DOLBY NR)
(REV MODE)
S900
S901
S902
S903
S904
S905
S906
S907
S908
S909
S910


5
6
7
8
9
10
11
12
13
14
PLAYBACK GAIN ADJ. (Lch, DECK 1)
PLAYBACK GAIN ADJ. (Lch, DECK 2)
PLAYBACK GAIN ADJ (Rch, DECK 1)
PLAYBACK GAIN ADJ. (Rch, DECK 2)
P.B AMP
REC AMP
REC MUTE
LINE P-B MUTE
CUE REV MODE
LINE MUTE
120/70
T2/T1
X2/X1
GND
Q9,10 2SD1450RSTTA REC EQ (X2)
Q3~8 UN4222TA REC EQ (METAL/CrO2/X2)
Q301,302 2SC3311AQSTA BIAS OSC
Q303 2SD1862QRTV6 BIAS OSC CONT.
Q304,311 2SB621AQRSTA BIAS OSC CONT.
Q705,706 UN4211TA SWITCHING
Q306 2SC3311AQSTA BIAS OSC CONT
Q305 UN4211TA SWITCHING (REC: ON)
Q309,310 UN4216TA BIAS CONT (TAPE SELECT)
Q100 2SC3311AQSTA TPS SELECT CONT.
IC100 BA4558FTI TPS SELECT CONT.
Q701,703,704 UN4111TA SWITCHING (DOLBY B/C)
Q702,707,708 UN4211TA SWITCHING (DOLBY B/C)
IC801 M38062M3152F MICRO COMPUTER
TEST TERMINAL
X801 (5MHz)
F=5MHz
50ms 2V/DIV
BUS-CLK-I
BUS-CLK-O
BUS-DATA-I
BUS-DATA-O
XOUT
XIN
RESET
CNVss
ACIN
ALC
DOLBY-C
DOLBY-B
ENC/DEC
LMT
PB-1/2
PB-120/70
PB-X2
Vcc
Vref
AVss
SIGNAL-M
(SIGNAL-R)
(SIGNAL-L)
QUICK2
B/C SEL
S953 (ATS/CrO2)
S952 (HALF)
S951 (MODE)
PL951 (SOLENOID)
D951 RVD1SS133TA
IC951 DN6851ALB HALL IC
MOTOR (DECK1)
MOTOR (DECK2)
S976 (ATS/METAL)
S974 (F.REC.INH.)
S975 (ATS/CrO2)
S973 (R.REC INH.)
S972 (HALF)
S971 (MODE)
PL971 (SOLENOID)
D971 RVD1SS133TA
IC971 DN6851ALB HALL IC
CN1
J951
CN2
CN4
CN3
J971
C MECHANISM (DECK1) CIRCUIT
D MECHANISM (DECK2) CIRCUIT

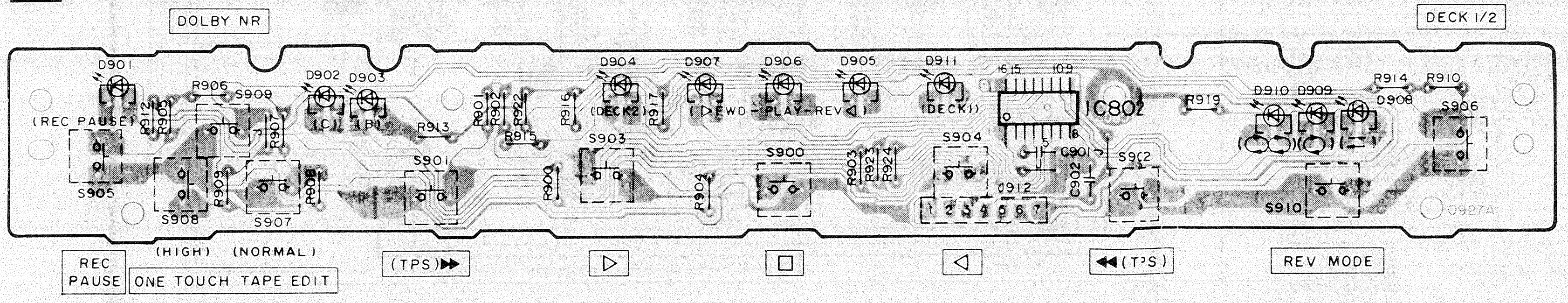

15
16
17
18
19
20
21
22
23
-6.4V
-7.8V
-7.8V
7.8V
IC401
CXA1331M-T6
DOLBY NR (B/C)
L401 10mH
L402 10mH
C401 K390P
C402 K390P
C403 K3300P
C404 K3300P
R401 2.7K
R402 2.7K
R403 5.6K
R404 5.6K
R405 24K
R406 24K
R407 560
R408 560
R409 150
R410 27K
C405 25V4.7
C406 25V4.7
C407 J2200P
C408 J2200P
C409 J2200P
C410 J2200P
C411 50V0.56
C412 50V0.56
C413 50V0.33
C414 50V0.33
C415 16V10
C416 16V10
C612 10V470
C613 10V470
R702 10K
R703 10K
C701 16V10
DOLBY "B": 0.2V
DOLBY "C": 4.7V
MOA
HLS
HDET
LDET
LLS
IREF
Rch
TP3
TP4
R45 6.8K
R46 6.8K
R47 2.7K
R48 2.7K
R49 6.8K
R50 6.8K
R51 6.8K
R52 6.8K
IC803
LA5608M-TE-L
BUS LINE DRIVE / RESET / HALT
B.DATA IN
B.CLK IN
B.DATA OUT
B.CLK OUT
Vcc
CA
AC
B.DATA
B.CLK
B.GND
GND
RESET
Cd
HALT
C810 Z0.022
C813 50V0.22
C811 50V0.33
R802 47
R231 5.6K
R201 1.5K
D203 MA165TA
D201 MA165TA
D202 MA165TA
D204 MA165TA
R232 5.6K
R202 15K
C616 Z0.01
R612 27
R611 27
R613 27
R614 27
C617 Z0.01
Q211
UN4113TA
SWITCHING (ALC)
R235 22K
R236 22K
Q213
Q214
IC501
BA4558FT1
REC LEVEL DET
C37 16V10
C38 16V10
R53 100K
R54 100K
C503 16V10
R508 8.2K
R507 22
D505 MA165TA
D501 MA165TA
R505 120K
C501 16V10
R503 15K
R501 39K
D506 MA165TA
D502 MA165TA
R506 120K
R504 15K
C502 16V10
R502 39K
Q207,209,210,213,214
2SC3312STTA
SWITCHING (ALC)
R227 27K
Q209
Q207
Q210
R223 22K
C209 25V4.7
R233 22K
R224 22K
R228 27K
Q208
Q204
Q203
R218 10K
R217 10K
Q208
UN4211TA
SWITCHING (ALC)
Q203,204
UN4111TA
LEVEL CONT. (ATLS)
Q201,202,205,206
2SC3311AQSTA
LEVEL CONT. (ATLS)
Q205
Q201
Q206
Q202
R219 8.2K
R215 3.9K
R220 8.2K
R216 3.9K
R211 27K
R213 3.3K
R214 3.3K
R212 27K
C207 50V1
C208 50V1
R229 390K
R230 390K
R700 10
LINE OUT POINT
LINE IN POINT
(L ch)
(R ch)
TP7
TP8
TP9
TP10
E1
JK1
Lch LINE OUT
A.GND
R ch LINE OUT
Lch LINE IN
R ch LINE IN
DC GND
AC IN
BUS DATA
CT GND
BUS CLK
AC IN
To SL-CH550 (To JK801)
13.8V
7.7V
5.6V
4.9V
Q811
2SB621AQRSTA
SOLENOID DRIVE
Q807
UN4222TA
SOLENOID DRIVE
Q809
2SD1302STTA
MOTOR CONT.
Q806
UN4222TA
SWITCHING (SPEED CONT.)
Q813,814
2SA1309AQSTA
MOTOR SPEED CONT.
Q810
2SD1302STTA
MOTOR CONT.
Q812
2SB621AQRSTA
SOLENOID DRIVE
Q808
UN4222TA
SOLENOID DRIVE
TAPE SPEED ADJ. (X1, DECK 2)
TAPE SPEED ADJ. (X1, DECK 1)
TAPE SPEED ADJ. (X2, DECK 2)
R807 22K
R809 820
R811 820
D803 MA165TA
R813 2.7
R823 15K
R819 VR801 5K(B)
R817 3.9K
R815 180K
R816 180K
R818 3.9K
R821 10K
R812 820
R814 2.7
D804 MA165TA
R824 12K
VR802 5K(B)
R820 10K
R808 22K
R810 820
13.9V
Q600,602
2SD1862QRTV6
REGULATOR
Q603
2SD2037EFTA
REGULATOR
Q601
2SB1357EFTA
REGULATOR
R608 1/4W4.7
R607 1/4W15
R605 1/4W4.7
R606 1/4W4.7
C611 50V1
R609 10
D608 MA4062NTA
R615 1K
C618 16V10
D612 MA4062NTA
C614 Z0.01
R610 2.2K
D610 MA4082MTA
D611 MA4082MTA
C609 Z0.01
C607 10V100
C608 10V100
C610 Z0.01
R603 1K
R604 1K
C604 25V1000
C605 25V1000
C606 Z0.01
D605 1SR35200TB
D604 1SR35200TB
D606 1SR35200TB
D607 1SR35200TB
D617 MA165TA
C602 6800P
C603 25V2200
D602 1SR35200TB
D603 1SR35200TB
C601 Z0.01
C600 Z0.01
D600 MA165TA
D601 MA165TA
R600 4.7K
R601 4.7K
TP61
TP62
TP63
TP64
TP65
POWER SUPPLY POINT
AC 12V
AC 12V

■ PRINTED CIRCUIT BOARD DIAGRAM

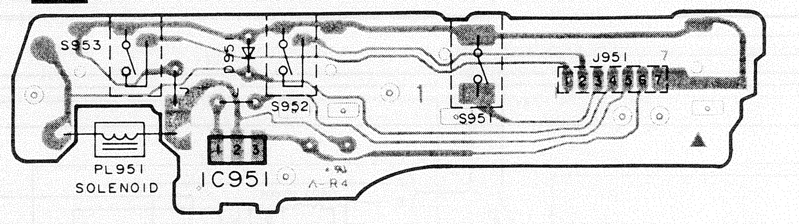
A MAIN P.C.B. (REP1440A-M)


IC801
IC803
IC501
IC401
IC1
IC100
TP61
TP63
TP62
POWER SUPPLY POINT
(Lch) TP7
TP8 (Rch)
LINE OUT POINT
(Lch) TP9
TP10 (Rch)
LINE IN POINT
SL-CH550

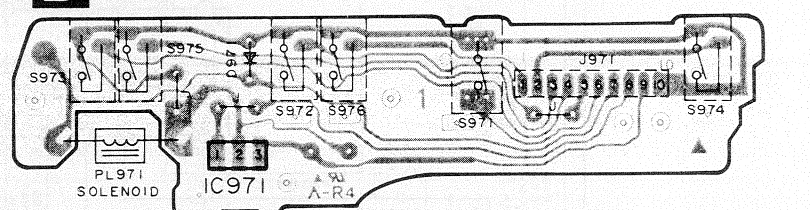
B OPERATION P.C.B. (REP1441A-S)

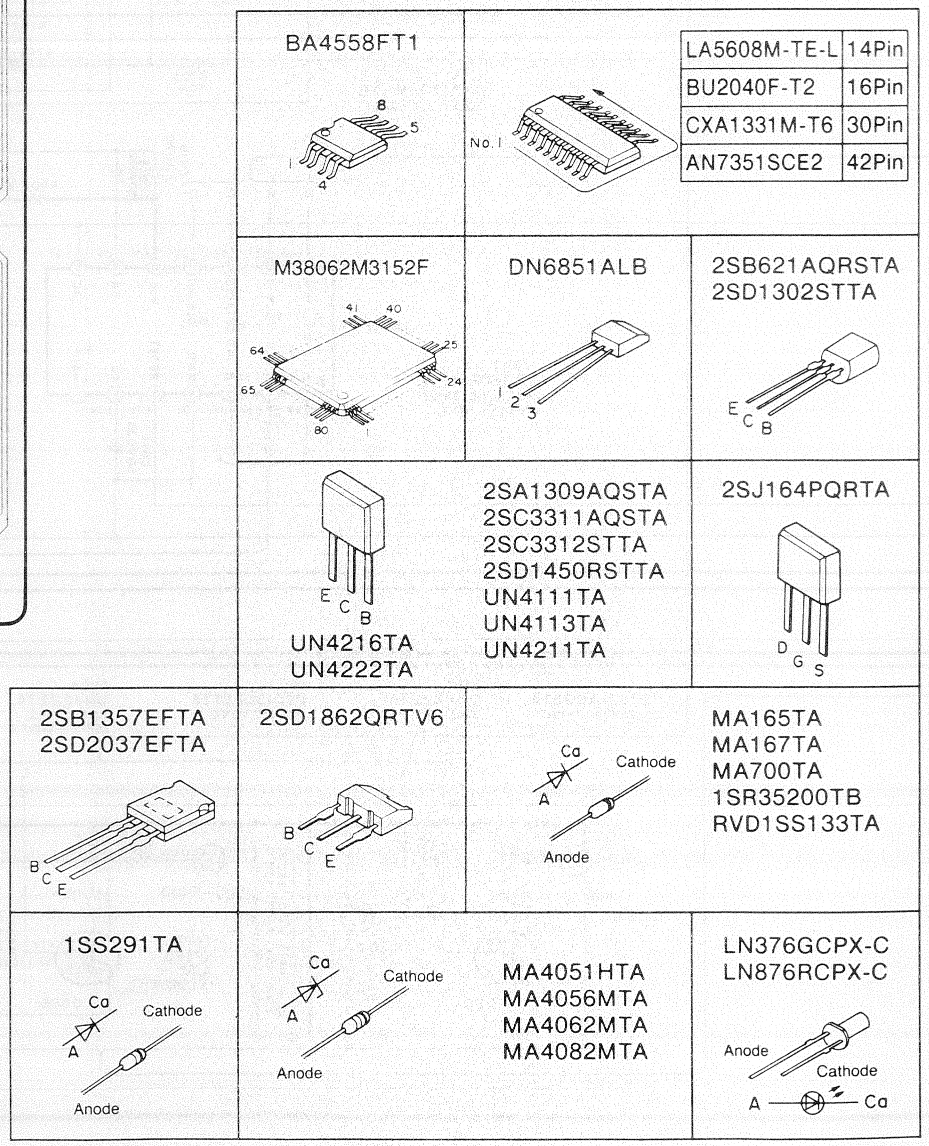

DOLBY NR
DECK 1/2
(REC PAUSE)
REC PAUSE
(HIGH) (NORMAL)
ONE TOUCH TAPE EDIT
(TPS)▶▶
▷
□
◁
◀◀(TPS)
REV MODE
IC802

C MECHANISM (DECK 1) P.C.B. (REP0107)

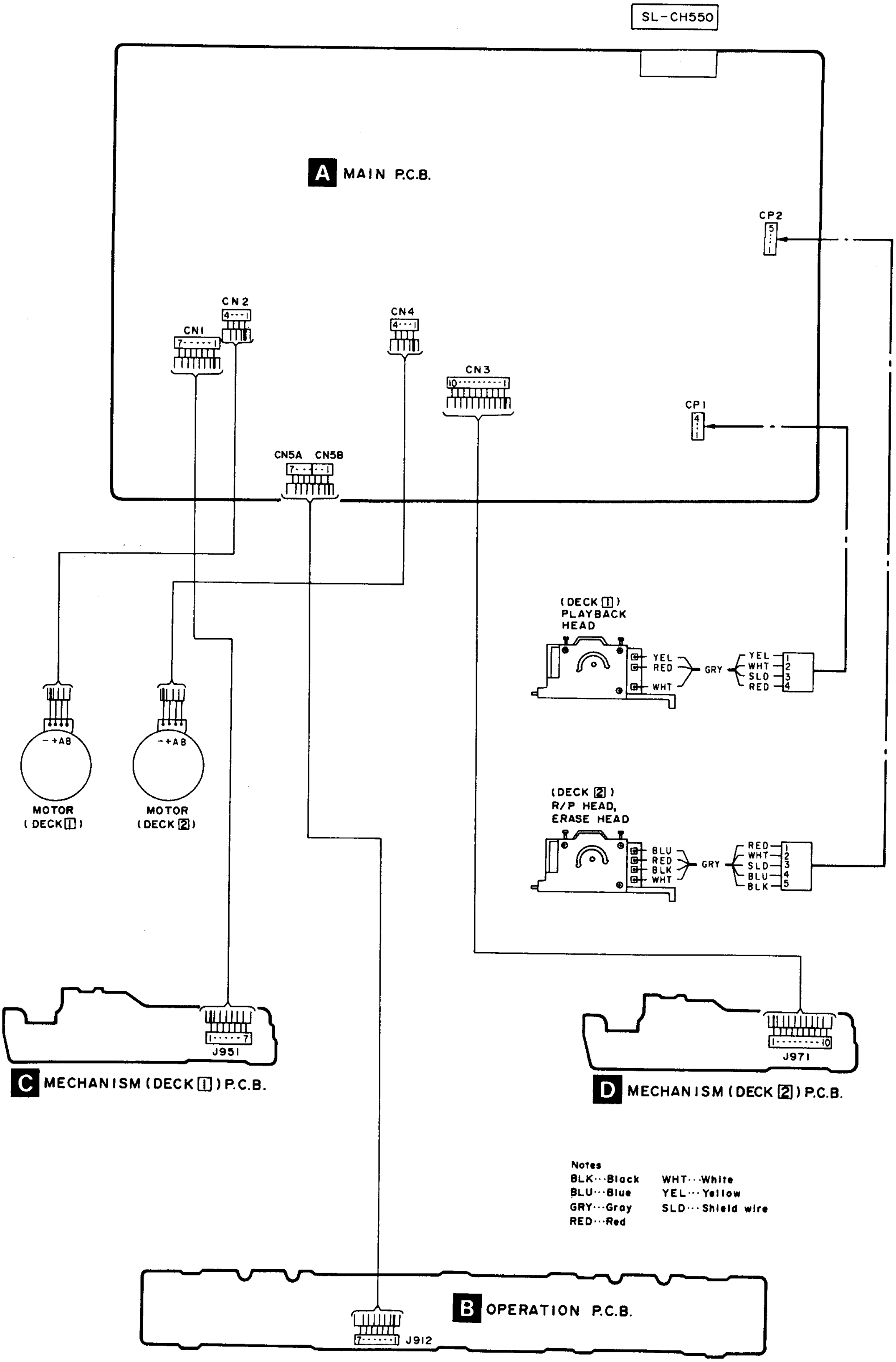

S953
S952
S951
J951
PL951
SOLENOID
IC951

D MECHANISM (DECK 2) P.C.B. (REP0075)


S973
S975
S972
S976
S971
S974
J971
PL971
SOLENOID
IC971


BA4558FT1
No.1
LA5608M-TE-L 14Pin
BU2040F-T2 16Pin
CXA1331M-T6 30Pin
AN7351SCE2 42Pin
M38062M3152F
DN6851ALB
2SB621AQRSTA
2SD1302STTA
E C B
UN4216TA
UN4222TA
2SA1309AQSTA
2SC3311AQSTA
2SC3312STTA
2SD1450RSTTA
UN4111TA
UN4113TA
UN4211TA
2SJ164PQRTA
D G S
2SB1357EFTA
2SD2037EFTA
2SD1862QRTV6
MA165TA
MA167TA
MA700TA
1SR35200TB
RVD1SS133TA
Ca
Cathode
A
Anode
1SS291TA
MA4051HTA
MA4056MTA
MA4062MTA
MA4082MTA
LN376GCPX-C
LN876RCPX-C

WIRING CONNECTION DIAGRAM


SL-CH550
A MAIN P.C.B.
CP2
5
1
CN2
4---1
CN1
7------1
CN4
4---1
CN3
10---------1
CP1
4
1
CN5A CN5B
7----1
(DECK 1)
PLAYBACK
HEAD
YEL
RED
WHT
GRY
YEL 1
WHT 2
SLD 3
RED 4
−+AB
MOTOR
(DECK 1)
−+AB
MOTOR
(DECK 2)
(DECK 2)
R/P HEAD,
ERASE HEAD
BLU
RED
BLK
WHT
GRY
RED 1
WHT 2
SLD 3
BLU 4
BLK 5
1-----7
J951
C MECHANISM (DECK 1) P.C.B.
1---------10
J971
D MECHANISM (DECK 2) P.C.B.
7-----1
J912
B OPERATION P.C.B.

Notes

BLK···Black
BLU···Blue
GRY···Gray
RED···Red
WHT···White
YEL···Yellow
SLD···Shield wire

■ MEASUREMENTS AND ADJUSTMENTS

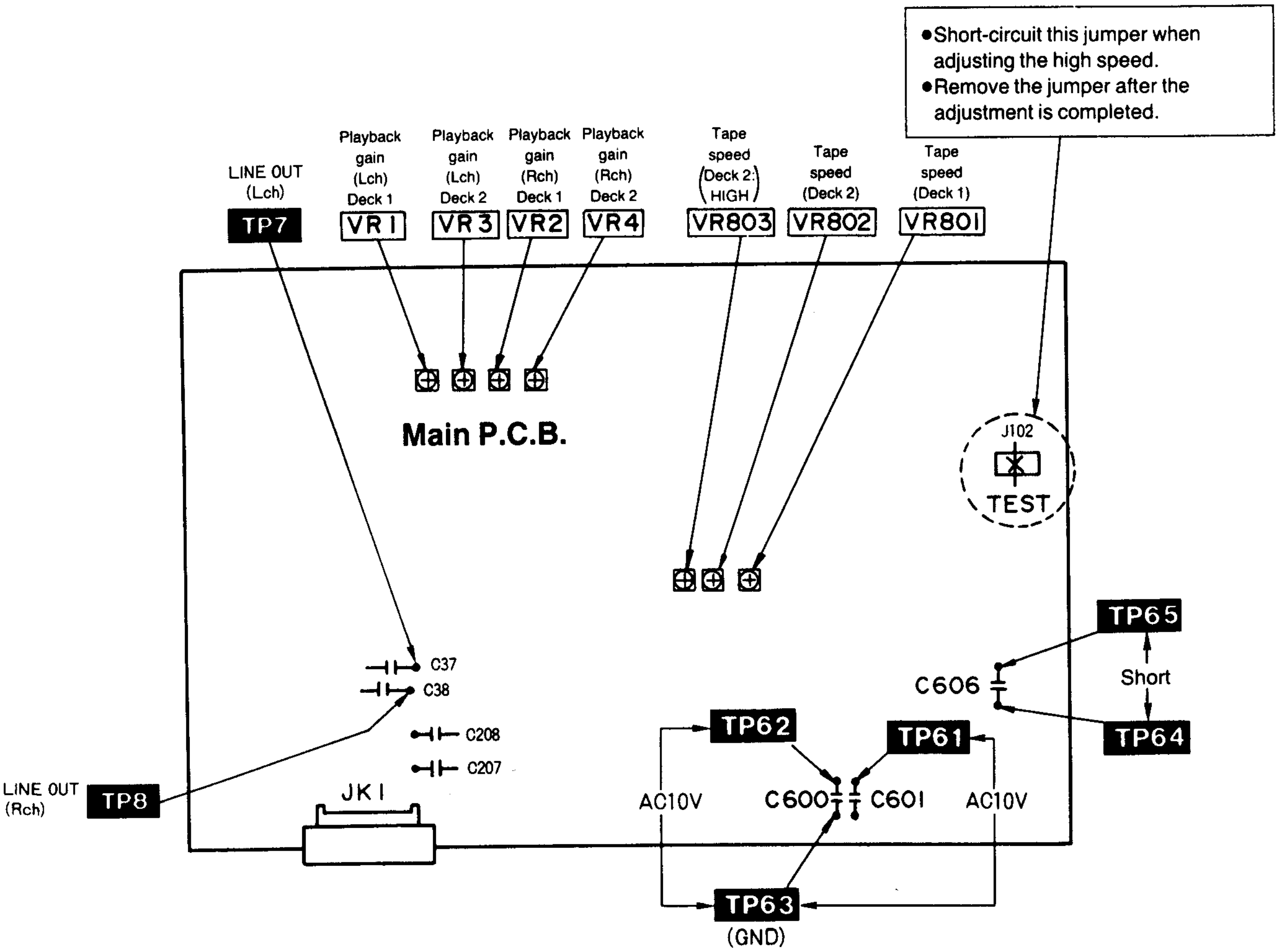
The RS-CH550 operates on power supplied from the SA-CH550 tuner amplifier.
To operate the RS-CH550 by connecting it to the tuner amplifier, short-circuit the test points shown below.

- Connect a jumper across TP64 and TP65.

The procedure below enables the RS-CH550 to be operated by itself without the SA-CH550 tuner amplifier during testing and repair.

1. Connect a jumper across TP64 and TP65.
2. Apply 10 V AC across TP61 and TP63 and TP62.

- Remove the jumper after the operational check is completed.



LINE OUT (Lch)
TP7
Playback gain (Lch) Deck 1
VR1
Playback gain (Lch) Deck 2
VR3
Playback gain (Rch) Deck 1
VR2
Playback gain (Rch) Deck 2
VR4
Tape speed (Deck 2: HIGH)
VR803
Tape speed (Deck 2)
VR802
Tape speed (Deck 1)
VR801
Main P.C.B.
J102
TEST
TP65
Short
TP64
C606
C37
C38
C208
C207
TP62
TP61
AC10V
C600
C601
AC10V
TP63
(GND)
LINE OUT (Rch)
TP8
JK1

- Short-circuit this jumper when adjusting the high speed.
- Remove the jumper after the adjustment is completed.

Measurement Condition

- Reverse-mode selector switch; ⇄
- One touch tape edit switch; NORMAL
- Dolby NR switch; OFF
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature 20±5°C (68±9°F)

Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter

Test tape

- Head azimuth adjustment (8 kHz, −20 dB); QZZCFM
- Tape speed adjustment (3 kHz, −10 dB); QZZCWAT
- Playback frequency response (315 Hz, 12.5 kHz, 10 kHz, 8 kHz, 4 kHz, 1 kHz, 250 Hz, 125 Hz, 63 Hz, −20 dB); QZZCFM
- Playback gain adjustment (315 Hz, 0 dB); QZZCFM

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8 kHz, −20 dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

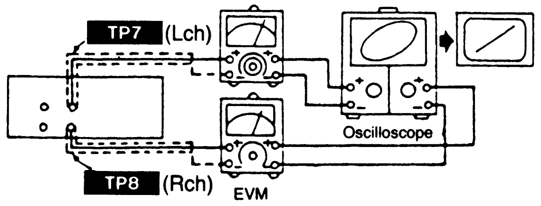


Fig. 1

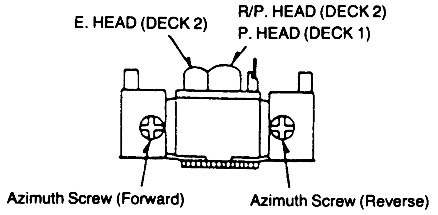


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)

Normal speed

1. Press the one touch tape edit (NORMAL) button. This will set the normal speed mode.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1=**VR801** and Deck 2=**VR802** so that the output is within the standard value.

Standard value: 3000±15 Hz (NORMAL speed)

High speed [Set the unit to forward (FWD) mode.]

4. Short-circuit the jumper (J102). This will set the high speed mode.
5. Playback the middle portion on the test tape (QZZCWAT).
6. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 6000±630 Hz (HIGH speed)

7. Adjust **VR803** so that the output frequency of DECK 2 is within **±30 Hz** of the value of the output frequency of DECK 1.

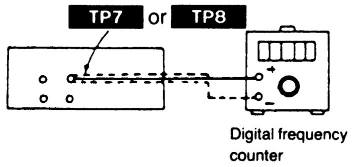


Fig. 3

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315 Hz, 0 dB) of the test tape (QZZCFM).
2. Adjust Deck 2=**VR3** (L-CH) [**VR4** (R-CH)] and Deck 1=**VR1** (L-CH) [**VR2** (R-CH)] so that the output is within the standard value.

Standard value: 400 mV±0.5 dB

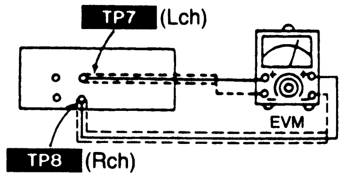


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315 Hz, 12.5 kHz~63 Hz, −20 dB) of the test tape (QZZCFM).
2. Assure that the frequency response is within the range shown in **Fig. 6** for both L-CH and R-CH.

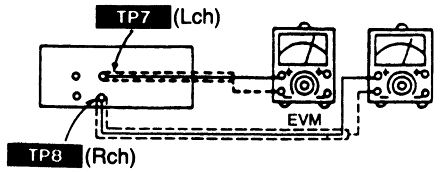


Fig. 5

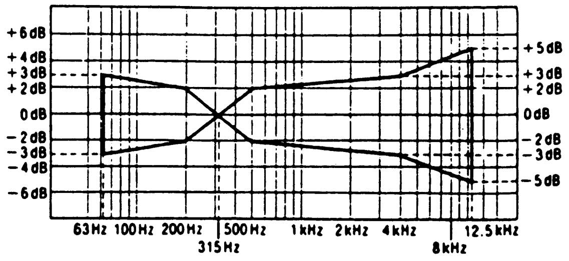


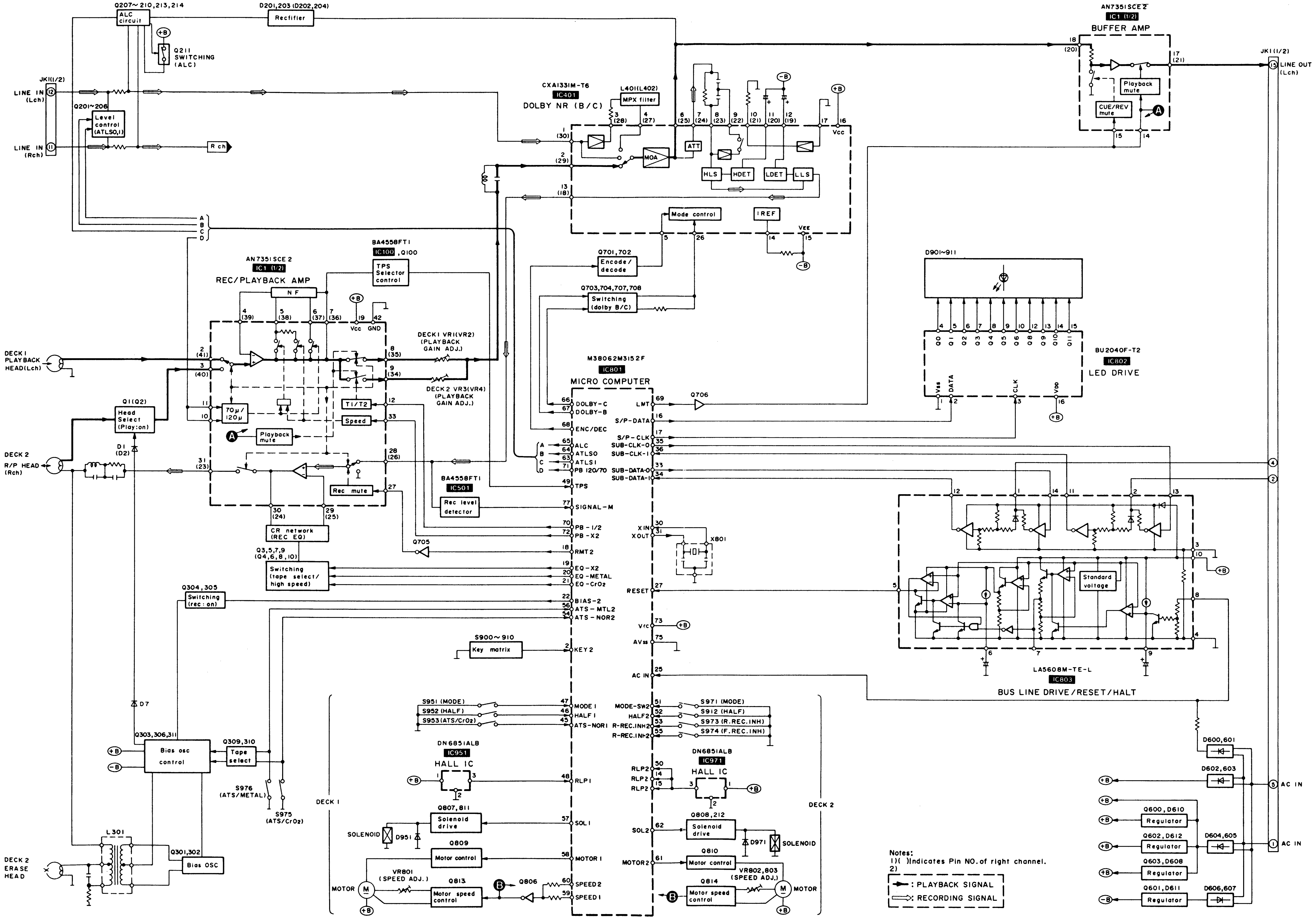
Fig. 6

■ FUNCTION OF IC TERMINALS

●IC801 (M38062M3152F)

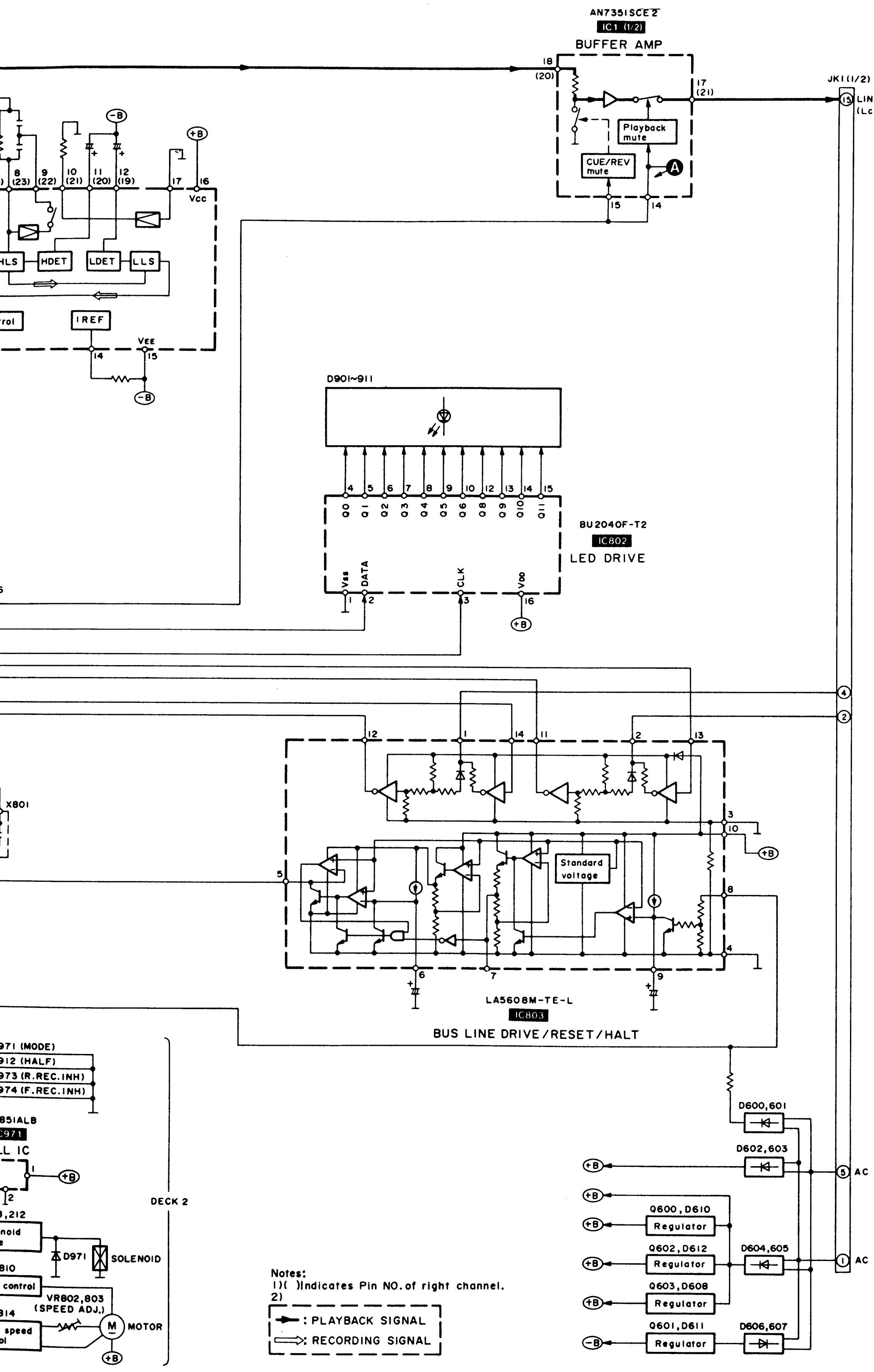
Pin No.	Terminal Name	I/O	Function
1	QUICK1	I	No use (pull down connection to Vss by resistance)
2	KEY2	I	Operation key and switch inputs of Decks 1 and 2
3	KEY1	I	Pull-up connection to Vss by resistance
4 ≀ 11	——	—	For Vss connection
12 • 13	——	—	Pull-down connection to Vss by resistance
14	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
15	RLP2	I	Detection pulse signal input of Deck 2 reel rocation
16	S/P-DATA	O	Serial signal output to LED IC
17	S/P-CLK	O	
18	RMT2	O	Recording muting signal output
19	EQ-×2	O	Switching signal output for equalizer of recording amplifier (×1/×2)
20	EQ-METAL	O	Switching signal output for equalizer of recording amplifier (METAL)
21	EQ-CrO2	O	Switching signal output for equalizer of recorder amplifier (CrO2)
22	BIAS2	O	ON/OFF signal output for recording bias
23	RMT1	O	No use (Pull-down connection to Vss by resistance)
24	BIAS1	O	No use (Pull-down connection to Vss by resistance)
25	AC IN	I	Power OFF detection signal input
26	CNVss	—	For Vss connection
27	RESET	I	Microprocessor reset signal output
28 • 29	——	—	Pull-down connection to Vss by resistance
30	XIN	I	Microprocesser clock signal input
31	XOUT	O	Microprocessor clock signal output
32	Vss	—	Ground connection
33	BUS-DATA-O	O	Bus signal input and output
34	BUS-DATA-I	I	
35	BUS-CLK-O	O	
36	BUS-CLK-I	I	
37 ≀ 39	——	—	Pull-down connection to Vss by resistance
40	B/C SEL	O	Pull-down connection to Vss by resistance
41	TEST	I	For ON/OFF of TEST mode
42	ATS-MTL1	I	No use (pull-down connection to Vss by resistance)
43	F-RECINH1	I	No use (pull-down connection to Vss by resistance)
44	R-RECINH1	I	No use (pull-down connection to Vss by resistance)
45	ATS-NOR1	I	Tape position (NORMAL) detection SW input of Deck 1
46	HALF1	I	Tape-in/out detection SW input of Deck 1
47	MODE1	I	Mechanical mode SW input of Deck 1
48	RLP1	I	Detection pulse signal input of Deck 1 reel rotation
49	TPS	I	Song detection signal input during TPS operation
50	RLP2	I	Detection pulse signal input of Deck 2 reel rotation
51	MODE2	I	Mechanical mode SW input of Deck 2
52	HALF2	I	Tape-in/out detection SW input of Deck 2
53	R-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "◀" direction)
54	ATS-NOR2	I	Tape position (NORMAL) detection SW input of Deck 2
55	F-RECINH2	I	Tape erasure prevention SW input of Deck 2 (in "▶" direction)
56	ATS-MTL2	I	Tape position (METAL) detection SW input of Deck 2
57	SOL1	O	Plunger ON/OFF signal output of Deck 1 mechanism
58	MOTOR1	O	Motor ON/OFF signal output of Deck 1 mechanism
59	SPEED1	O	Motor speed switching signal output of Deck 1 mechanism
60	SPEED2	O	Motor speed switching signal output of Deck 2 mechanism
61	MOTOR2	O	Motor ON/OFF signal output of Deck 2 mechanism
62	SOL2	O	Plunger ON/OFF signal output of Deck 2 mechahism
63	ATLS1	O	Setting of ATLS operation level
64	ATLS0	O	
65	ALC	O	ON/OFF signal output of ALC circuit
66	DOLBY-C	O	ON/OFF signal output of Dolby C
67	DOLBY-B	O	ON/OFF signal output of Dolby B
68	ENC/DEC	O	Encoder/decoder switching signal output of Dolby IC
69	LMT	O	Line out muting signal output
70	PB-1/2	O	Switching signal of player amplifier (Deck 1/2)
71	PB-120/70	O	Switching signal output for equalizer of player amplifier
72	PB-X2	O	Switching signal output for equalizer of player amplifier
73	Vcc	I	Power supply terminal for microprocessor
74	Vref	I	Reference power supply terminal for A/D input
75	AVss	—	Ground terminal for A/D input
76	——	—	Pull-down connection to Vss by resistance
77	SIGNAL-M	I	ATLS signal input
78	(SIGNAL-R)	I	No use (pull-down connection to Vss by resistance)
79	(SIGNAL-L)	I	No use (pull-down connection to Vss by resistance)
80	QUICK2	I	No use (pull-down connection to Vss by resistance)

■ BLOCK DIAGRAM


Q207~210,213,214
ALC circuit
D201,203 (D202,204)
Rectifier
Q211 SWITCHING (ALC)
JK1(1/2)
LINE IN (Lch)
LINE IN (Rch)
Q201~206
Level control (ATLS0,1)
R ch
A
B
C
D
CXA1331M-T6
IC401
DOLBY NR (B/C)
L401(L402)
MPX filter
MOA
ATT
HLS
HDET
LDET
LLS
Mode control
IREF
Vcc
VEE
AN7351SCE2
IC1 (1/2)
BUFFER AMP
Playback mute
CUE/REV mute
LINE OUT (Lch)
BA4558FT1
IC100, Q100
TPS Selector control
AN7351SCE2
IC1 (1/2)
REC/PLAYBACK AMP
NF
Vcc GND
DECK1 VR1(VR2) (PLAYBACK GAIN ADJ.)
DECK2 VR3(VR4) (PLAYBACK GAIN ADJ.)
DECK1 PLAYBACK HEAD(Lch)
Q1(Q2)
Head Select (Play:on)
70μ/120μ
T1/T2
Speed
Playback mute
DECK2 R/P HEAD (Rch)
D1 (D2)
Rec mute
BA4558FT1
IC501
Rec level detector
CR network (REC EQ)
Q3,5,7,9 (Q4,6,8,10)
Switching (tape select/high speed)
Q304,305
Switching (rec: on)
Q701,702
Encode/decode
Q703,704,707,708
Switching (dolby B/C)
M38062M3152F
IC801
MICRO COMPUTER
DOLBY-C
DOLBY-B
ENC/DEC
ALC
ATLS0
ATLS1
PB 120/70
TPS
SIGNAL-M
PB-1/2
PB-X2
RMT2
EQ-X2
EQ-METAL
EQ-CrO2
BIAS-2
ATS-MTL2
ATS-NOR2
KEY2
MODE1
HALF1
ATS-NOR1
RLP1
SOL1
MOTOR1
SPEED2
SPEED1
LMT
S/P-DATA
S/P-CLK
SUB-CLK-O
SUB-CLK-I
SUB-DATA-O
SUB-DATA-I
XIN
XOUT
X801
RESET
Vcc
AVss
AC IN
MODE-SW2
HALF2
R-REC.INH2
R-REC.INH2
RLP2
RLP2
RLP2
SOL2
MOTOR2
Q705
Q706
S900~910
Key matrix
S951 (MODE)
S952 (HALF)
S953 (ATS/CrO2)
S971 (MODE)
S912 (HALF)
S973 (R.REC.INH)
S974 (F.REC.INH)
DN6851ALB
IC951
HALL IC
DN6851ALB
IC971
HALL IC
Q807,811
Solenoid drive
SOLENOID
D951
Q809
Motor control
VR801 (SPEED ADJ.)
Q813
Motor speed control
MOTOR
Q806
Q808,212
Solenoid drive
D971
SOLENOID
Q810
Motor control
Q814
Motor speed control
VR802,803 (SPEED ADJ.)
MOTOR
DECK 1
DECK 2
D7
Q303,306,311
Bias osc control
Q309,310
Tape select
S976 (ATS/METAL)
S975 (ATS/CrO2)
L301
Q301,302
Bias OSC
DECK2 ERASE HEAD
D901~911
BU2040F-T2
IC802
LED DRIVE
Q0 Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11
Vss DATA CLK VDD
Standard voltage
LA5608M-TE-L
IC803
BUS LINE DRIVE/RESET/HALT
D600,601
D602,603
AC IN
Q600,D610
Regulator
Q602,D612
Regulator
D604,605
Q603,D608
Regulator
Q601,D611
Regulator
D606,607
AC IN

Notes:
1) ( )Indicates Pin NO. of right channel.
2)

◀━	: PLAYBACK SIGNAL
⇨	: RECORDING SIGNAL


AN7351SCE2
IC1 (1/2)
BUFFER AMP
Playback mute
CUE/REV mute
JK1 (1/2)
LINE OUT (Lch)
HLS
HDET
LDET
LLS
IREF
VEE
Vcc
D901~911
BU2040F-T2
IC802
LED DRIVE
Vss
DATA
CLK
VDD
Standard voltage
X801
LA5608M-TE-L
IC803
BUS LINE DRIVE/RESET/HALT
D971 (MODE)
D912 (HALF)
D973 (R.REC.INH)
D974 (F.REC.INH)
DN6851ALB
IC971
HALL IC
DECK 2
D971
SOLENOID
VR802,803 (SPEED ADJ.)
MOTOR
D600,601
D602,603
D604,605
D606,607
Q600,D610 Regulator
Q602,D612 Regulator
Q603,D608 Regulator
Q601,D611 Regulator
AC IN
AC IN

Notes:
1)( )Indicates Pin NO. of right channel.
2)
→ : PLAYBACK SIGNAL
⇨ : RECORDING SIGNAL

■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)	
IC1	AN7351SCE2	I. C, PLAYBACK/REC AMP	
IC100	SVIBA4558F	I. C, TPS SELECT CONT.	
IC401	CXA1331M-T6	I. C, DOLBY NR	
IC501	SVIBA4558F	I. C, REC LEVEL DET.	
IC801	M38062M3152F	I. C, MICRO COMPUTER	
IC802	BU2040F-T2	I. C, LED DRIVE	
IC803	LA5608M-TE-L	I. C, BUS LINE DRIVE/RESET	
IC951	DN6851ALB	I. C, HALL	
IC971	DN6851ALB	I. C, HALL	
		TRANSISTOR(S)	
Q1, 2	2SJ164PQRTA	TRANSISTOR	
Q3-8	UN4222	TRANSISTOR	
Q9	2SD1450RTA	TRANSISTOR	
Q10	2SD1450RTA	TRANSISTOR	
Q100	2SC3311A-Q	TRANSISTOR	
Q201, 202	2SC3311A-Q	TRANSISTOR	
Q203, 204	UN4111	TRANSISTOR	
Q205, 206	2SC3311A-Q	TRANSISTOR	
Q207	2SC3312STTA	TRANSISTOR	
Q208	UN4211	TRANSISTOR	
Q209, 210	2SC3312STTA	TRANSISTOR	
Q211	UN4113TA	TRANSISTOR	
Q213, 214	2SC3312STTA	TRANSISTOR	
Q301, 302	2SC3311A-Q	TRANSISTOR	
Q303	2SD1862QRTV6	TRANSISTOR	
Q304	2SB621A-R	TRANSISTOR	
Q305	UN4211	TRANSISTOR	
Q306	2SC3311A-Q	TRANSISTOR	
Q309, 310	UN4216-S	TRANSISTOR	
Q311	2SB621A-R	TRANSISTOR	
Q600	2SD1862QRTV6	TRANSISTOR	
Q601	2SB1357EFTA	TRANSISTOR	
Q602	2SD1862QRTV6	TRANSISTOR	
Q603	2SD2037EFTA	TRANSISTOR	
Q701	UN4111	TRANSISTOR	
Q702	UN4211	TRANSISTOR	
Q703, 704	UN4111	TRANSISTOR	
Q705-708	UN4211	TRANSISTOR	
Q806-808	UN4222	TRANSISTOR	
Q809, 810	2SD1302STTA	TRANSISTOR	
Q811, 812	2SB621A-R	TRANSISTOR	
Q813, 814	2SA1309A-R	TRANSISTOR	

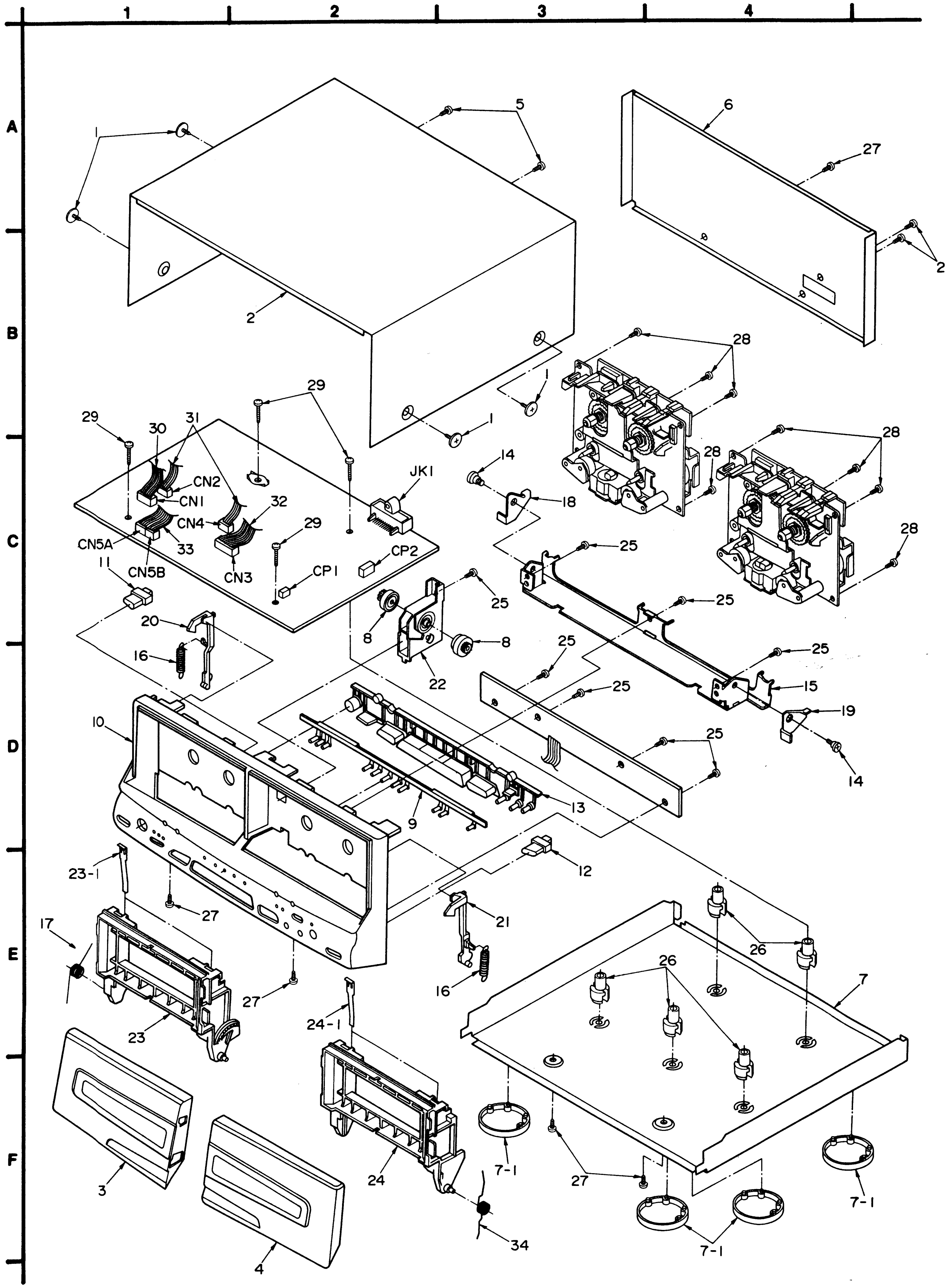
Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE(S)	
D1, 2	MA167	DIODE	
D4, 5	MA700TA	DIODE	
D6-8	MA165	DIODE	
D100	MA165	DIODE	
D201-204	MA165	DIODE	
D300	MA167	DIODE	
D301	MA4056MTA	DIODE	
D302	MA165	DIODE	
D501, 502	MA165	DIODE	
D505, 506	MA165	DIODE	
D600, 601	MA165	DIODE	⚠
D602-607	1SR35200TB	DIODE	⚠
D608	MA4082MTA	DIODE	
D610, 611	MA4082MTA	DIODE	
D612	MA4062MTA	DIODE	
D617	MA165	DIODE	
D800, 801	1SS291TA	DIODE	
D803, 804	MA165	DIODE	
D808	MA165	DIODE	
D809	MA4051H	DIODE	
D810	MA165	DIODE	
D811	1SS291TA	DIODE	
D813, 814	MA165	DIODE	
D901-904	LN876RCPX-C	L. E. D.	
D905-907	LN376GCPX-C	L. E. D.	
D908-911	LN876RCPX-C	L. E. D.	
D951	RVD1SS133TA	DIODE	
D971	RVD1SS133TA	DIODE	
		VARIABLE RESISTOR(S)	
VR1	EVNDXAA00B24	V. R, PLAYBACK GAIN(DECK1) (L)	
VR2	EVNDXAA00B24	V. R, PLAYBACK GAIN(DECK1) (R)	
VR3	EVNDXAA00B24	V. R, PLAYBACK GAIN(DECK2) (L)	
VR4	EVNDXAA00B24	V. R, PLAYBACK GAIN(DECK2) (R)	
VR801	EVNDXAA00B53	V. R, TAPE SPEED(DECK1)	
VR802	EVNDXAA00B53	V. R, TAPE SPEED(DECK2)	
VR803	EVNDXAA00B53	V. R, TAPE SPEED(DECK2)	
		COIL(S)	
L1, 2	SLQX303-1KT	COIL	
L3, 4	RLQB103JT-Y	COIL	
L301	SL09B4-K	COIL	

Ref. No.	Part No.	Part Name & Description	Remarks
L401, 402	RLQB103JT-Y	COIL	
		OSCILLATOR	
X801	RSXY5M00M01T	OSCILLATOR	
		SWITCH(ES)	
S900	EVQ21405R	SW, STOP	
S901	EVQ21405R	SW, F. F. (TPS)	
S902	EVQ21405R	SW, REW(TPS)	
S903	EVQ21405R	SW, PLAY(FWD)	
S904	EVQ21405R	SW, PLAY(REV)	
S905	EVQ21405R	SW, REC PAUSE	
S906	EVQ21405R	SW, DECK1/2	
S907	EVQ21405R	SW, NORMAL	
S908	EVQ21405R	SW, HIGH	
S909	EVQ21405R	SW, DOLBY NR	
S910	EVQ21405R	SW, REV MODE	
S951	RSH1A89Z	SW, DECK1 MODE	
S952	RSH1A90YC-U	SW, DECK1 HALF	
S953	RSH1A90YC-U	SW, DECK1 ATS/Cr02	
S971	RSH1A89Z	SW, DECK2 MODE	
S972	RSH1A90YC-U	SW, DECK2 HALF	
S973	RSH1A90YC-U	SW, DECK2 R. REC INH	
S974	RSH1A90YC-U	SW, DECK2 F. REC INH	
S975	RSH1A90YC-U	SW, DECK2 ATS/Cr02	
S976	RSH1A90YC-U	SW, DECK2 ATS/METAL	
		CONNECTOR	
JK1	RJT065K15	CONNECTOR(15P)	
J912	REZ0511	FLAT CABLE(7P)	
J951	RJS7T7ZA	CONNECTOR(7P)	
J971	RJS10T7ZA	CONNECTOR(10P)	
CN1	RJS7T4ZA	CONNECTOR(7P)	
CN2	RJS1A6604	CONNECTOR(4P)	
CN3	SJSD1005	CONNECTOR(10P)	
CN4	RJS1A6604	CONNECTOR(4P)	
CN5A	RJS1A6604	CONNECTOR(4P)	
CN5B	RJS1A6603	CONNECTOR(3P)	
CP1	SJTD413	CONNECTOR(4P)	
CP2	RJP5G18ZA	CONNECTOR(5P)	
		EARTH TERMINAL	
E1	SNE1004-1	GND PLATE	

Notes : • Capacity values are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
• Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R1-4	ERDS2TJ101	1/4W 100
R5, 6	ERDS2TJ103	1/4W 10K
R7, 8	ERDS2TJ273	1/4W 27K
R9	ERDS2TJ163T	1/4W 16K
R10	ERDS2TJ163T	1/4W 16K
R11, 12	ERDS2EJ121	1/4W 120
R13, 14	ERDS2TJ394	1/4W 390K
R15, 16	ERDS2TJ153	1/4W 15K
R17, 18	ERDS2TJ272T	1/4W 2.7K
R19	ERDS2TJ392T	1/4W 3.9K
R21, 22	ERDS2TJ103	1/4W 10K
R23, 24	ERDS2TJ225	1/4W 2.2M
R25	ERDS2TJ103	1/4W 10K
R27, 28	ERDS2TJ123	1/4W 12K
R29, 30	ERDS2TJ563	1/4W 56K
R31, 32	ERDS2TJ682T	1/4W 6.8K
R33, 34	ERDS2TJ562	1/4W 5.6K
R35, 36	ERDS2TJ220T	1/4W 22
R37, 38	ERDS2TJ391	1/4W 390
R39, 40	ERDS2TJ222	1/4W 2.2K
R41, 42	ERDS2TJ181T	1/4W 180
R43, 44	ERDS2TJ103	1/4W 10K
R45, 46	ERDS2TJ682T	1/4W 6.8K
R47, 48	ERDS2TJ272T	1/4W 2.7K
R49-52	ERDS2TJ682T	1/4W 6.8K
R53, 54	ERDS2TJ104	1/4W 100K
R55, 56	ERDS2TJ472	1/4W 4.7K
R57, 58	ERDS2TJ104	1/4W 100K
R61, 62	ERDS2TJ102	1/4W 1K
R63, 64	ERDS2TJ562	1/4W 5.6K
R100	ERDS2TJ332	1/4W 3.3K
R101	ERDS2TJ331	1/4W 330
R102	ERDS2TJ823T	1/4W 82K
R103	ERDS2TJ393	1/4W 39K
R104	ERDS2TJ682T	1/4W 6.8K
R105	ERDS2TJ102	1/4W 1K
R106	ERDS2TJ473	1/4W 47K
R107	ERDS2TJ123	1/4W 12K
R201, 202	ERDS2TJ152	1/4W 1.5K
R211, 212	ERDS2TJ273	1/4W 27K
R213, 214	ERDS2TJ332	1/4W 3.3K
R215, 216	ERDS2TJ392T	1/4W 3.9K
R217, 218	ERDS2TJ103	1/4W 10K
R219, 220	ERDS2TJ822	1/4W 8.2K
R223, 224	ERDS2TJ223	1/4W 22K
R227, 228	ERDS2TJ273	1/4W 27K
R229, 230	ERDS2TJ394	1/4W 390K
R231, 232	ERDS2TJ562	1/4W 5.6K
R233	ERDS2TJ223	1/4W 22K
R235, 236	ERDS2TJ223	1/4W 22K
R301	ERDS2TJ1R0	1/4W 1.0
R302, 303	ERDS2TJ183T	1/4W 18K
R304, 305	ERDS2TJ100	1/4W 10
R306	ERDS2TJ561	1/4W 560
R307	ERD2FCVG150T	1/4W 15 ⚠
R308	ERDS2TJ103	1/4W 10K
R309	ERDS2TJ563	1/4W 56K
R310	ERDS2TJ562	1/4W 5.6K
R314	ERDS2TJ473	1/4W 47K
R315	ERDS2TJ272T	1/4W 2.7K
R318	ERDS2TJ561	1/4W 560
R319	ERDS2TJ331	1/4W 330
R320	ERDS2TJ821	1/4W 820
R321	ERDS2TJ822	1/4W 8.2K
R322	ERDS2TJ680T	1/4W 68
R323, 324	ERDS2TJ473	1/4W 47K
R325	ERDS2TJ103	1/4W 10K
R401, 402	ERDS2TJ272T	1/4W 2.7K
R403, 404	ERDS2TJ562	1/4W 5.6K
R405, 406	ERDS2TJ243T	1/4W 24K
R407, 408	ERDS2TJ561	1/4W 560
R409	ERDS2TJ151	1/4W 150
R410	ERDS2TJ273	1/4W 27K
R501, 502	ERDS2TJ393	1/4W 39K
R503, 504	ERDS2TJ153	1/4W 15K
R505, 506	ERDS2TJ124T	1/4W 120K
R507	ERDS2TJ220T	1/4W 22
R508	ERDS2TJ822	1/4W 8.2K
R600, 601	ERDS2TJ472	1/4W 4.7K
R603, 604	ERDS2TJ102	1/4W 1K
R605, 606	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R607	ERD2FCVG150T	1/4W 15 ⚠
R608	ERD2FCVJ4R7T	1/4W 4.7 ⚠
R609	ERDS2TJ100	1/4W 10
R610	ERDS2TJ222	1/4W 2.2K
R611-614	ERDS2TJ270T	1/4W 27
R615	ERDS2TJ102	1/4W 1K
R700	ERDS2TJ100	1/4W 10
R701	ERDS2TJ822	1/4W 8.2K
R702, 703	ERDS2TJ103	1/4W 10K
R704-706	ERDS2TJ472	1/4W 4.7K
R707	ERDS2TJ152	1/4W 1.5K
R710	ERDS2TJ103	1/4W 10K
R800	ERDS2TJ103	1/4W 10K
R802	ERDS2TJ470	1/4W 47
R803	ERDS2TJ104	1/4W 100K
R804	ERDS2TJ103	1/4W 10K
R807, 808	ERDS2TJ223	1/4W 22K
R809-812	ERDS2TJ821	1/4W 820
R813, 814	ERDS2TJ2R7T	1/4W 2.7
R815, 816	ERDS2TJ184T	1/4W 180K
R817, 818	ERDS2TJ392T	1/4W 3.9K
R819, 820	ERDS2TJ103	1/4W 10K
R823	ERDS2TJ153	1/4W 15K
R824	ERDS2TJ123	1/4W 12K
R837	ERDS2TJ103	1/4W 10K
R840	ERDS2TJ103	1/4W 10K
R841-843	ERDS2TJ472	1/4W 4.7K
R844	ERDS2TJ102	1/4W 1K
R845	ERDS2TJ472	1/4W 4.7K
R846	ERDS2TJ102	1/4W 1K
R847-849	ERDS2TJ472	1/4W 4.7K
R850	ERDS2TJ332	1/4W 3.3K
R851-860	ERDS2TJ103	1/4W 10K
R863-873	ERDS2TJ103	1/4W 10K
R875-877	ERDS2TJ102	1/4W 1K
R900	ERDS2TJ821	1/4W 820
R901	ERDS2TJ102	1/4W 1K
R902	ERDS2TJ122	1/4W 1.2K
R903	ERDS2TJ152	1/4W 1.5K
R904	ERDS2TJ182	1/4W 1.8K
R905	ERDS2TJ222	1/4W 2.2K
R906	ERDS2TJ332	1/4W 3.3K
R907	ERDS2TJ472	1/4W 4.7K
R908	ERDS2TJ682T	1/4W 6.8K
R909	ERDS2TJ123	1/4W 12K
R910	ERDS2TJ683	1/4W 68K
R912, 913	ERDS2TJ821	1/4W 820
R914	ERDS2TJ223	1/4W 22K
R915	ERDS2TJ821	1/4W 820
R916, 917	ERDS2TJ391	1/4W 390
R919	ERDS2TJ821	1/4W 820
R922	ERDS2TJ821	1/4W 820
R923, 924	ERDS2TJ272T	1/4W 2.7K
		CAPACITORS
C1-4	ECBA1H681KB5	50V 680P
C5, 6	ECEA0JKA470B	6.3V 47U
C7, 8	ECQB1H822JF3	50V 8200P
C9	ECEA1EKA4R7B	25V 4.7U
C10-12	ECEA1EKA4R7B	25V 4.7U
C13	ECEA0JKA470B	6.3V 47U
C15, 16	ECEA1EKA4R7B	25V 4.7U
C17, 18	ECKR2H121KB5	500V 120P
C19, 20	ECBT1H561KB5	50V 560P
C23, 24	ECBT1H102KB5	50V 1000P
C25	ECBT1E103ZF	25V 0.01U
C27, 28	ECEA1HKAR22B	50V 0.22U
C29, 30	ECQB1H472JF3	50V 4700P
C31, 32	ECQB1H123JF3	50V 0.012U
C33, 34	ECBT1H391KB5	50V 390P
C35, 36	ECBT1H102KB5	50V 1000P
C37, 38	ECEA1CKA100B	16V 10U
C39, 40	ECBT1C392KR5	16V 3900P
C41	ECBT1H102KB5	50V 1000P
C100	ECQB1H103JF3	50V 0.01U
C101	ECEA1HKA3R3B	50V 3.3U
C102	ECBT1H470J5	50V 47P
C103	ECEA1HKA2R2B	50V 2.2U
C207, 208	ECEA1HKA010B	50V 1U
C209	ECEA1EKA4R7B	25V 4.7U
C301	ECQP1153JZ	100V 0.015U
C302	ECEA1EKA4R7B	25V 4.7U
C303	ECKR1H392KB5	50V 3900P
C304, 305	ECKW1H222KB5	50V 2200P
C306	ECKD1H682KB	50V 6800P
C307	ECBT1E103ZF	25V 0.01U
C308	ECKR1H472KB5	50V 4700P
C309	ECEA1HKA010B	50V 1U
C310	ECBT1E103ZF	25V 0.01U
C311, 312	ECBT1H221KB5	50V 220P
C401, 402	ECBT1H391KB5	50V 390P
C403, 404	ECBT1C332KR5	16V 3300P
C405, 406	ECEA1EKA4R7B	25V 4.7U
C407-410	ECQB1H222JF3	50V 2200P
C411, 412	ECEA1HUR56B	50V 0.56U
C413, 414	ECEA1HKAR33B	50V 0.33U
C415, 416	ECEA1CKA100B	16V 10U
C501-503	ECEA1CKA100B	16V 10U
C600, 601	ECKR1H103ZF5	50V 0.01U ⚠
C602	ECKR2H682PE	500V 6800P ⚠
C603	ECEA1EU222B	25V 2200U
C604, 605	ECA1EM102B	25V 1000U
C606	ECKR1H103ZF5	50V 0.01U
C607, 608	ECEA1AKA101B	10V 100U
C609, 610	ECBT1E103ZF	25V 0.01U
C611	ECEA1HKA010B	50V 1U
C612, 613	ECA1AM471B	10V 470U
C614, 615	ECBT1E103ZF	25V 0.01U
C616, 617	ECKR1H103ZF5	50V 0.01U
C618	ECEA1CKA100B	16V 10U
C701	ECEA1CKA100B	16V 10U
C802	ECA0JM102B	6.3V 1000U
C803, 804	ECBT1E103ZF	25V 0.01U
C810	ECBT1E223ZF	25V 0.022U
C811	ECEA1HKAR33B	50V 0.33U
C812	ECBT1E103ZF	25V 0.01U
C813	ECEA1HKAR22B	50V 0.22U
C901	ECBT1H470J5	50V 47P
C902	ECBT1H104ZF5	50V 0.1U

■ CABINET PARTS LOCATION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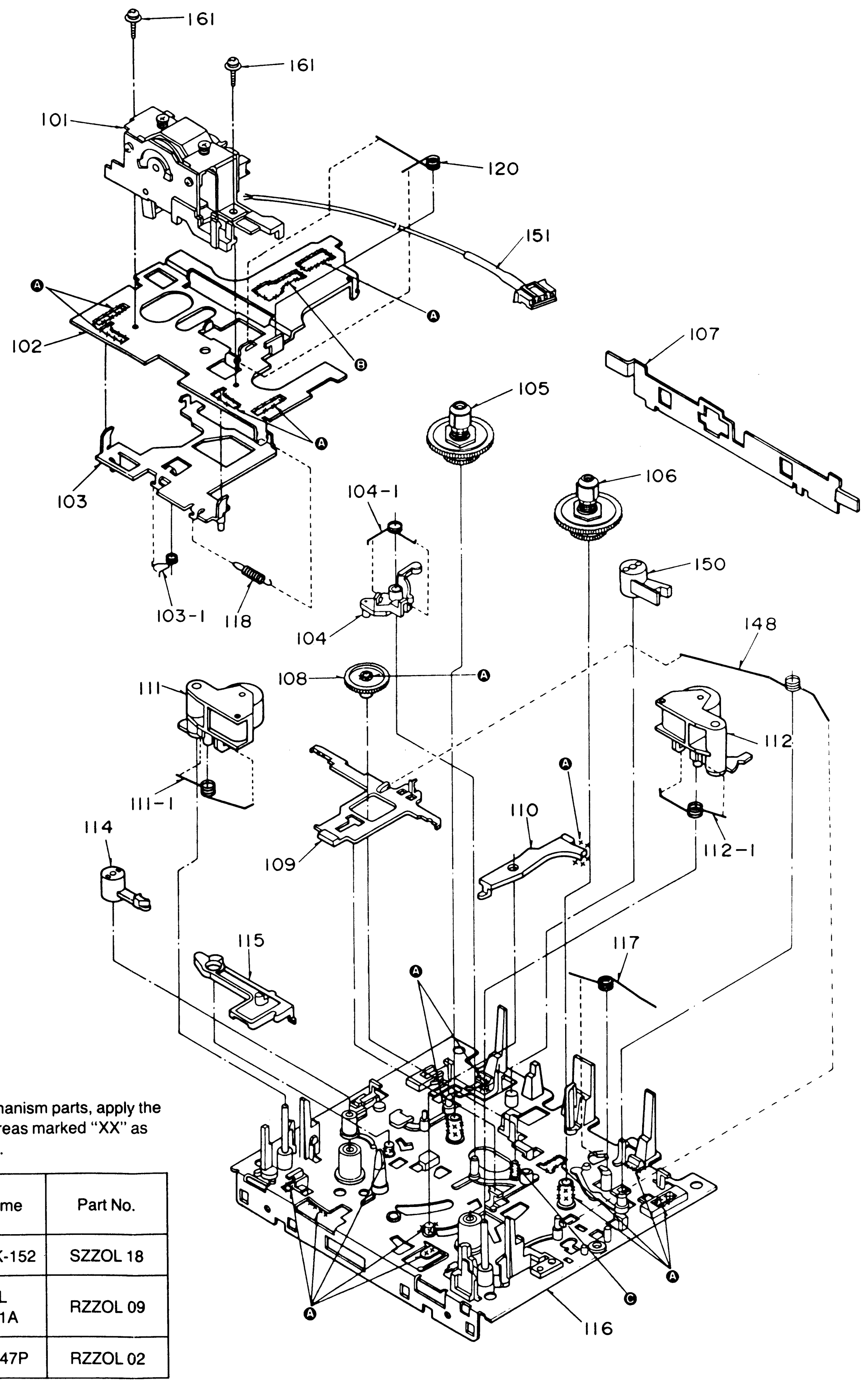
Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET PARTS	
1	RHD30007	SCREW	
2	RKM0202-1K	CABINET	
3	RYF0182A-K	CASSETTE LID(DECK1)	
4	RYF0183-K	CASSETTE LID(DECK2)	
5	XTBS3+8JFZ1	SCREW	
6	RGR0147A-C	REAR PANEL	
7	RFKJHCH550NK	BOTTOM BOARD ASS'Y	
7-1	RKA0055-N	FOOT	
8	RDG0201	DAMPER GEAR	
9	RGL0166-Q	LENS	
10	RGP0276-K	FRONT PANEL	
11	RGU0765-K	EJECT BUTTON(DECK1)	
12	RGU0766-K	EJECT BUTTON(DECK2)	
13	RGU0767-K	BUTTON, OPERATION	
14	RHD30032	SCREW	
15	RMA0593	MECHANISM ANGLE	
16	RMB0141-1	EJECT ROD SPRING	
17	RMB0253	C. HOLDER SPRING(DECK1)	
18	RML0263	EJECT LEVER(DECK1)	
19	RML0264	EJECT LEVER(DECK2)	
20	RMM0089	EJECT ROD(DECK1)	
21	RMM0090	EJECT ROD(DECK2)	
22	RMR0576-K	GEAR HOLDER	
23	RYF0184-K	CASSETTE HOLDER(DECK1)	
23-1	RUS757ZA	SPRING	
24	RYF0185-K	CASSETTE HOLDER(DECK2)	
24-1	RUS757ZA	SPRING	
25	XTBS26+8J	SCREW	
26	SHE185-2	HOLDER	
27	XTBS3+8JFZ1	SCREW	
28	XTB3+10JFZ	SCREW	
29	XTB3+16JFZ	SCREW	
30	RWJ5707210XX	FLAT CABLE(7P)	
31	RWJ1804200XX	FLAT CABLE(4P)	
32	RWJ5710200XX	FLAT CABLE(10P)	
33	REZ0511	FLAT CABLE(7P) (J912)	
34	RMB0254	C. HOLDER SPRING(DECK2)	

Ref. No.	Part No.	Part Name & Description	Remarks

■ MECHANISM PARTS LOCATION •DECK 1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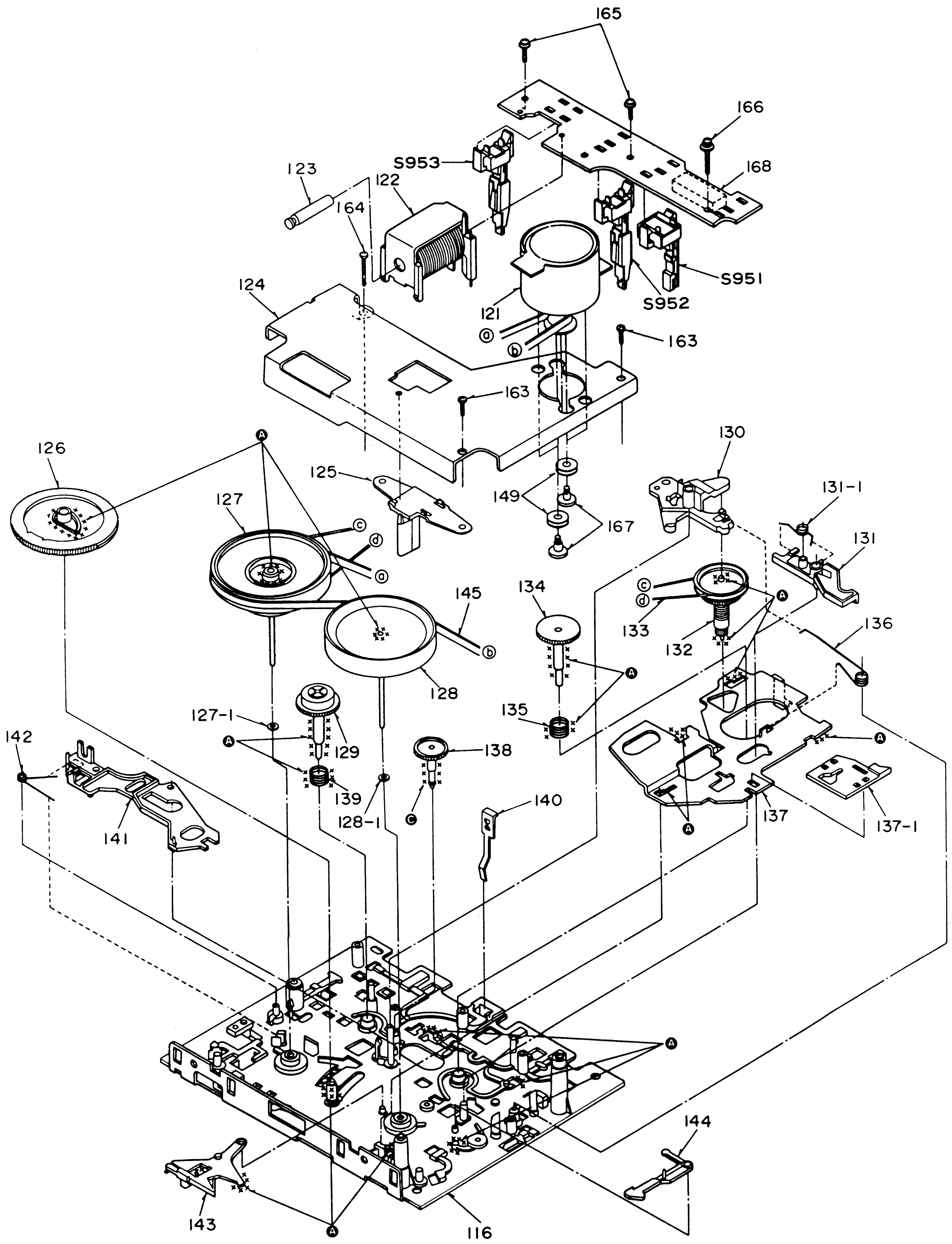
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Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL 18
Ⓑ	FLOIL GP-501A	RZZOL 09
Ⓒ	FLOIL 947P	RZZOL 02

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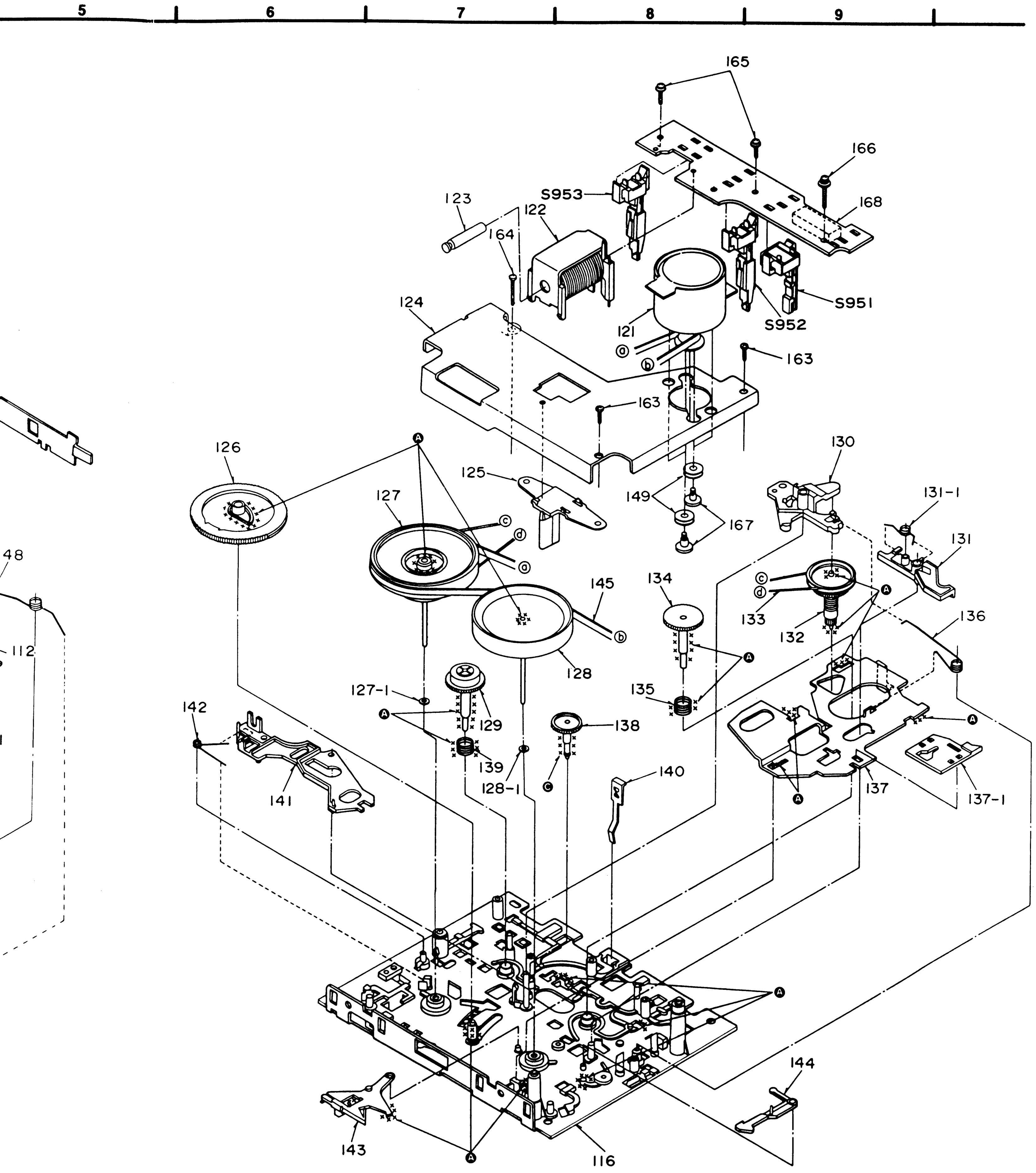
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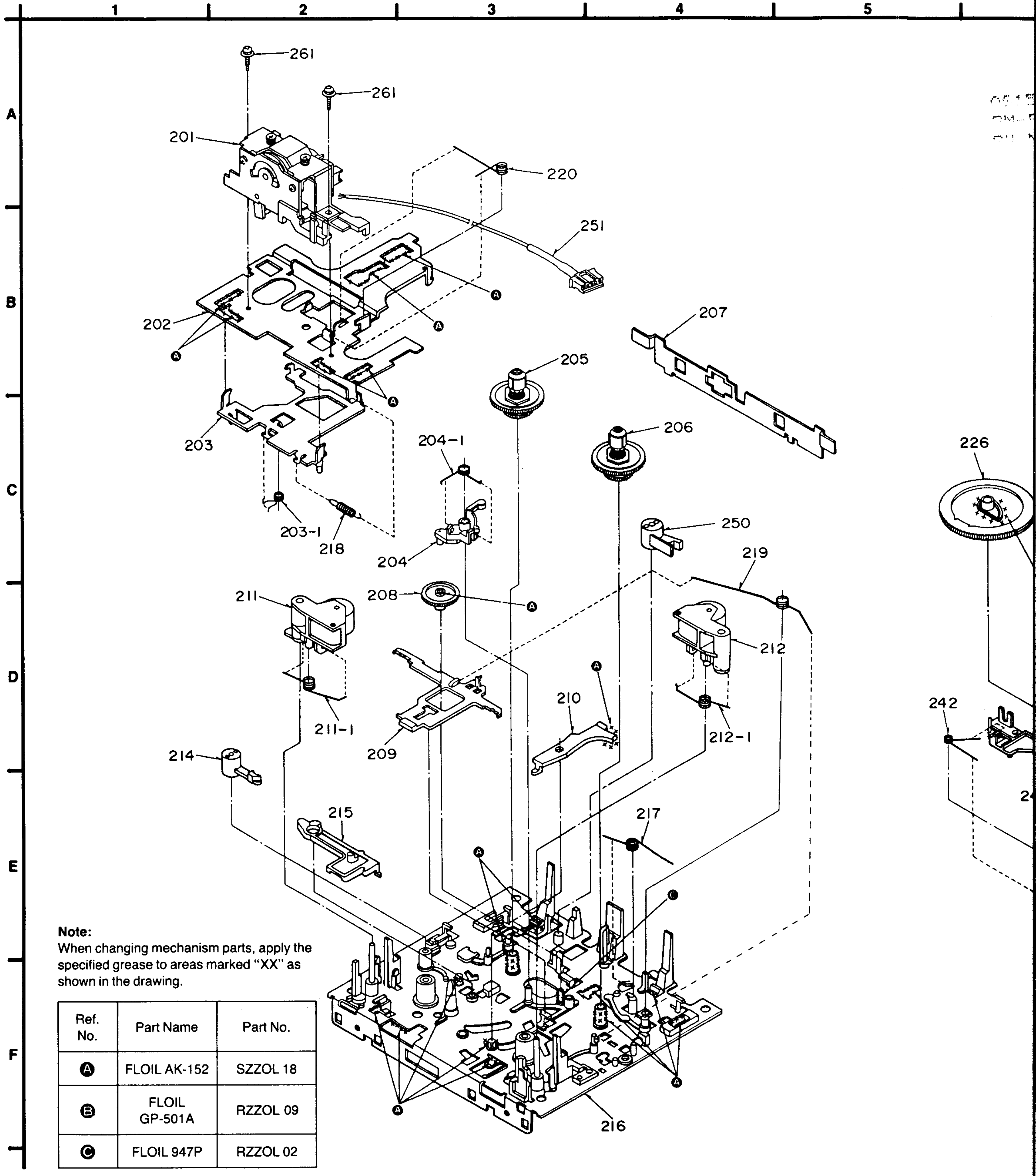
Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS	
		DECK1(P. B)	
101	RXQ0051-2	HEAD ASS' Y(P. B)	
102	RUA793ZF	CHASSIS	
103	RZLAR300	LEVER ASS' Y	
103-1	RUW143ZA	SPRING	
104	1UB0089ZA	ARM	
104-1	RUW148ZA	SPRING	
105	1DM0018ZB	REEL TABLE ASS' Y	
106	1DM0017ZB	REEL TABLE ASS' Y	
107	RML0069-1	LEVER	
108	RDG5772ZC	GEAR	
109	RUB508ZB	LEVER	
110	RUB506ZB	LEVER	
111	1UB0088ZB	PINCH ROLLER	
111-1	RUW141ZA	SPRING	
112	1UB0087ZB	PINCH ROLLER	
112-1	RUW140ZC	SPRING	
114	RNL1ZD	ARM	
115	RUB503ZD	LEVER	
116	RFKRAA0320	CHASSIS ASS' Y	
117	RUW142ZA	SPRING	
118	RUD105ZA	SPRING	
120	RUW139ZA	SPRING	
121	RFM133ZA	MOTOR ASS' Y	
122	1UE0015ZB	PLUNGER	
123	RUB428ZE	SHAFT	
124	RUL1030YA	PLATE	
125	RMD5014ZC	SPACER	
126	RDG5927ZG	GEAR	
127	1DW0037ZB	FLYWHEEL ASS' Y	
127-1	RNW139ZA	WASHER	
128	1DW0038ZB	FLYWHEEL ASS' Y	
128-1	RNW138ZA	WASHER	
129	1DG0006ZB	GEAR	
130	RUB513ZD	LEVER	
131	1UB0091ZA	LEVER	
131-1	RUW146ZA	SPRING	
132	1DR0011ZB	PULLEY ASS' Y	
133	RDV90ZB	BELT	
134	RDG5769ZA	GEAR	
135	RUQ111ZB	SPRING	
136	RUW145ZA	SPRING	
137	1UB0090ZA	ROD	
137-1	RUB512ZB	ROD	
138	RDG5773ZB	GEAR	
139	RUQ112ZA	SPRING	
140	RUS609ZC	SPRING	
141	RUB514ZC	LEVER	
142	RUW147ZA	SPRING	
143	RUB515ZA	LEVER	
144	RUB509ZA	LEVER	
145	RDV108ZA	BELT	
148	RUW144ZA	SPRING	
149	RHG3032ZA	RUBBER	
150	RNL180ZB	LEVER	
151	REX0061	CABLE ASS' Y	
161	XTW2+6L	SCREW	
163	XTN26+7J	SCREW	
164	RHE5203ZA	SCREW	
165	XTW2+8S	SCREW	
166	XYC2+JF16	SCREW	
167	RHD26002	SCREW	
168	RJS7T7ZA	CONNECTOR(7P)	

Ref. No.	Part No.	Part Name & Description	Remarks
		DECK2(R/P)	
201	RXQ0007-2	HEAD ASS'Y(R/P)	
202	RUA793ZF	CHASSIS	
203	RZLAR300	LEVER ASS'Y	
203-1	RUW143ZA	SPRING	
204	1UB0089ZA	ARM	
204-1	RUW148ZA	SPRING	
205	1DM0018ZB	REEL TABLE ASS'Y	
206	1DM0017ZB	REEL TABLE ASS'Y	
207	RML0069-1	LEVER	
208	RDG5772ZC	GEAR	
209	RUB508ZB	LEVER	
210	RUB506ZB	LEVER	
211	1UB0088ZB	PINCH ROLLER	
211-1	RUW141ZA	SPRING	
212	1UB0087ZB	PINCH ROLLER	
212-1	RUW140ZC	SPRING	
214	RNL1ZD	ARM	
215	RUB503ZD	LEVER	
216	RFKRAA0320	CHASSIS ASS'Y	
217	RUW142ZA	SPRING	
218	RUD105ZA	SPRING	
219	RUW144ZA	SPRING	
220	RUW139ZA	SPRING	
221	RFM133ZA	MOTOR ASS'Y	
222	1UE0015ZB	PLUNGER	
223	RUB428ZE	SHAFT	
224	RUL1030YA	PLATE	
225	RMD5014ZC	SPACER	
226	RDG5927ZG	GEAR	
227	1DW0037ZB	FLYWHEEL ASS'Y	
227-1	RNW139ZA	WASHER	
228	1DW0038ZB	FLYWHEEL ASS'Y	
228-1	RNW138ZA	WASHER	
229	1DG0006ZB	GEAR	
230	RUB513ZD	LEVER	
231	1UB0091ZA	LEVER	
231-1	RUW146ZA	SPRING	
232	1DR0011ZB	PULLEY ASS'Y	
233	RDV90ZB	BELT	
234	RDG5769ZA	GEAR	
235	RUQ111ZB	SPRING	
236	RUW145ZA	SPRING	
237	1UB0090ZA	ROD	
237-1	RUB512ZB	ROD	
238	RDG5773ZB	GEAR	
239	RUQ112ZA	SPRING	
240	RUS609ZC	SPRING	
241	RUB514ZC	LEVER	
242	RUW147ZA	SPRING	

Ref. No.	Part No.	Part Name & Description	Remarks
243	RUB515ZA	LEVER	
244	RUB509ZA	LEVER	
245	RDV108ZA	BELT	
249	RHG3032ZA	RUBBER	
250	RNL180ZB	LEVER	
251	REX0059	CABLE ASS'Y	
261	XTW2+6L	SCREW	
263	XTN26+7J	SCREW	
264	RHE5203ZA	SCREW	
265	XTW2+8S	SCREW	
266	XYC2+JF16	SCREW	
267	RHD26002	SCREW	
268	RJS10T7ZA	CONNECTOR(10P)	

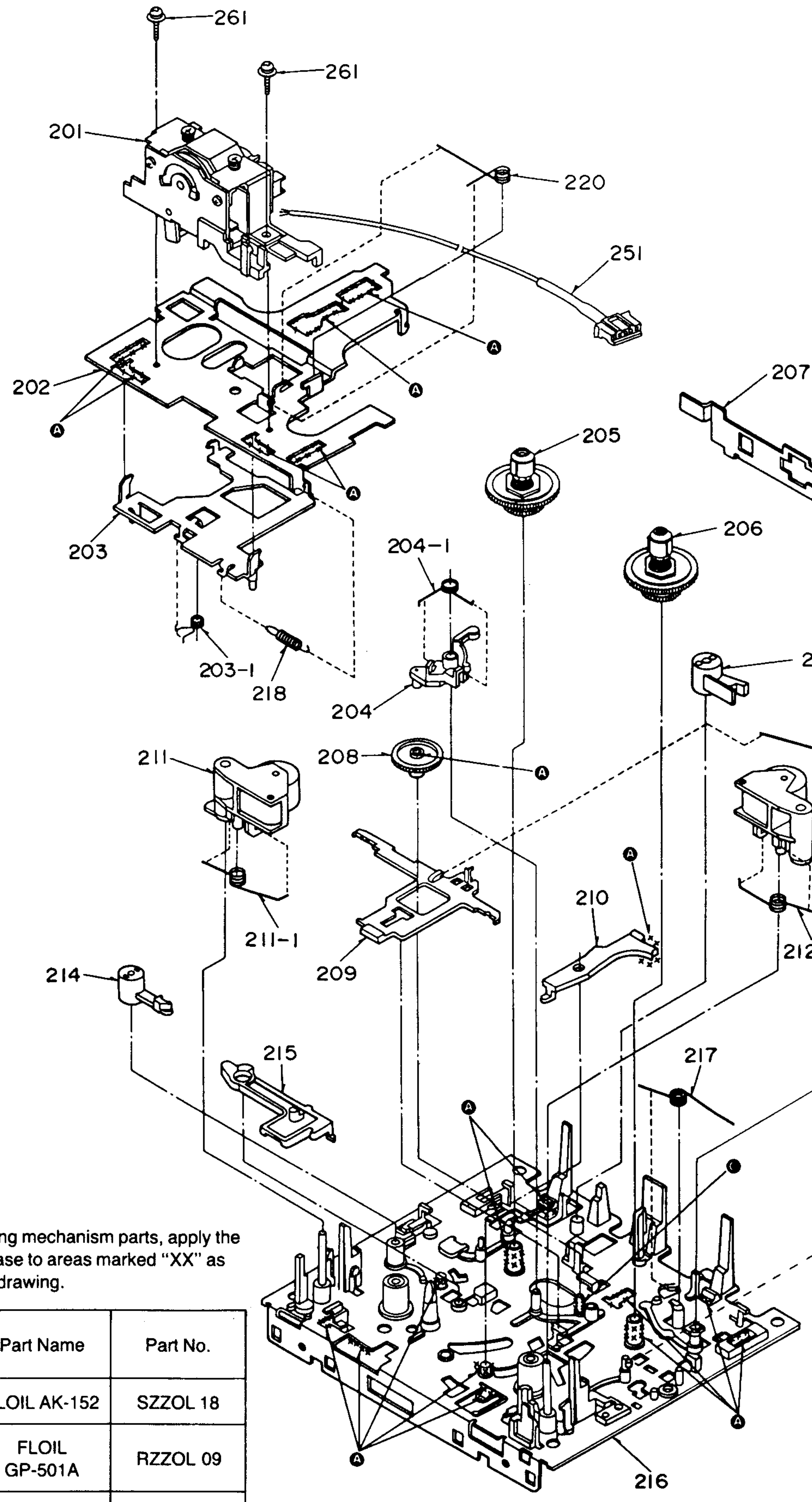
■ MECHANISM PARTS LOCATION •DECK 2



Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL 18
Ⓑ	FLOIL GP-501A	RZZOL 09
Ⓒ	FLOIL 947P	RZZOL 02

■ MECHANISM PARTS LOCATION •DECK 2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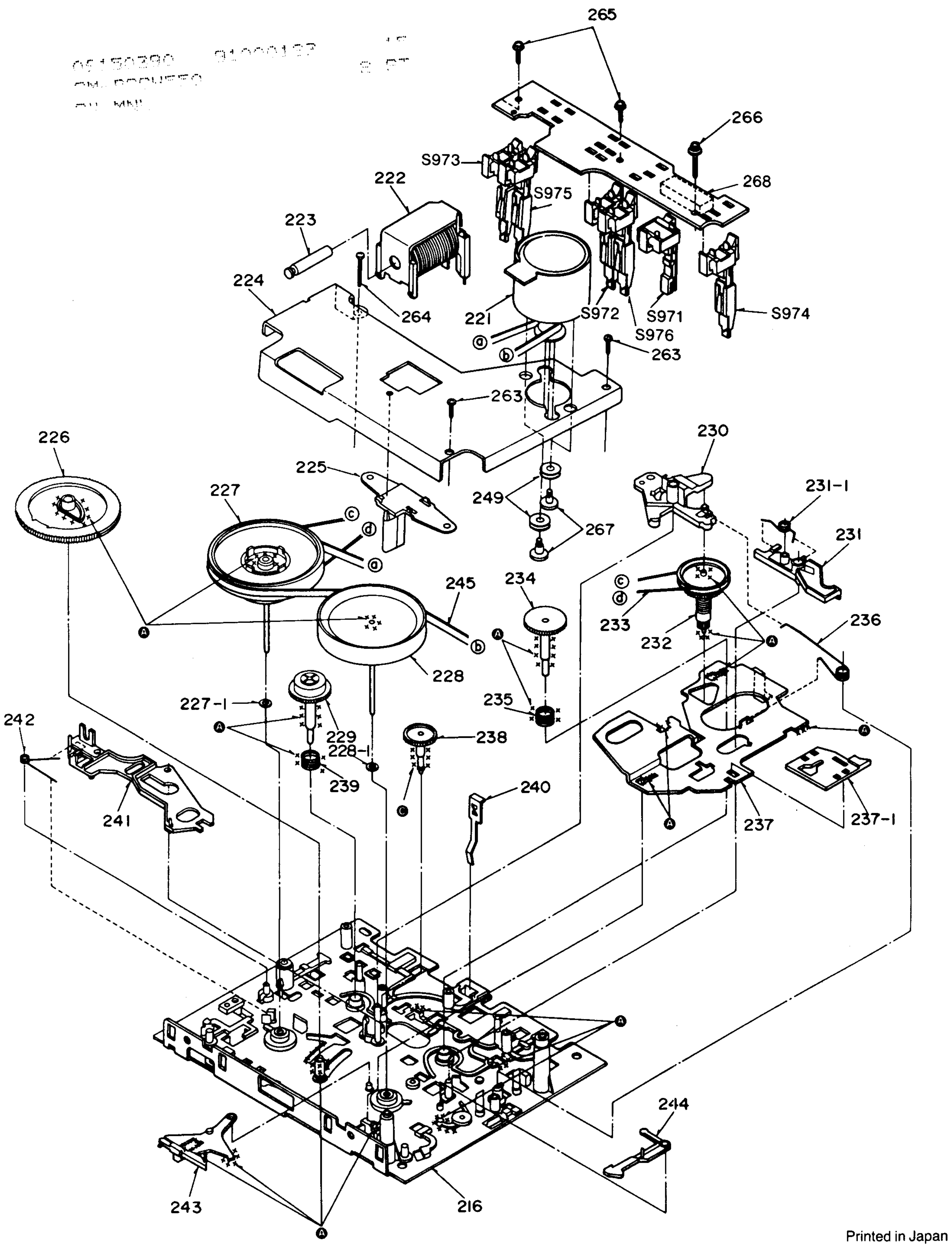
Note:
When changing mechanism parts, apply the specified grease to areas marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
Ⓐ	FLOIL AK-152	SZZOL 18
Ⓑ	FLOIL GP-501A	RZZOL 09
Ⓒ	FLOIL 947P	RZZOL 02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